
Adolescent Births: A Statistical Profile

Massachusetts 1995

Supplement to Advance Data BIRTHS 1995

***Massachusetts Department of Public Health
Bureau of Family and Community Health, Office of Statistics and Evaluation
Bureau of Health Statistics, Research and Evaluation***

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1995***

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Executive Summary

Introduction

Adolescent Births: A Statistical Profile, Massachusetts, 1995 is a supplement to the publication *Advance Data BIRTHS 1995*, and presents selected annual statistics and trend data on births among adolescent women in Massachusetts, as well as comparisons with national data. The four sections cover: demographic and birth characteristics and teen birth trends for the state as a whole; birthweight, gestational age, adequacy of prenatal care, and infant mortality; teen birth rates and birth characteristics for each of the 25 communities with the highest number of teen births in 1995; and teen birth characteristics for each of the 351 Massachusetts communities and for each of the 27 Community Health Network Areas (CHNAs). Teen births refer to births to resident Massachusetts women under 20 years old, unless specified otherwise. Massachusetts data are from the Registry of Vital Records and Statistics, Massachusetts Department of Public Health (MDPH). United States data are from the Centers for Disease Control and Prevention, National Center for Health Statistics (NCHS).

Overall, Massachusetts continues to have a low birth rate among women ages 15-19 relative to most other states and the nation as a whole¹. However, some Massachusetts communities have community-specific teen birth rates that are higher than, and in some cases double, the national rate. Moreover, there are still disparities across race/Hispanic ethnicity subgroups in relation to low birthweight births and adequacy of prenatal care. The data presented in this profile are intended to present information that will assist those planning programs, provide evaluators and researchers with reference measures, and assist policy makers in their efforts to address adolescent health issues.

Summary

I. Statewide Demographic and Birth Characteristics

Number and Percentage of Births to Women under Age 20

- ✓ In 1995, 6,107 infants were born to Massachusetts women under age 20, a 21.4% decline since 1980, and a 17.3% decline since 1990. This decline is due in part to the decrease in the number and proportion of females ages 12-19 living in Massachusetts from 411,579 (13.7% of all Massachusetts women) in 1980 to 305,509 (9.8%) in 1990.

¹ National Center for Health Statistics, Department of Health and Human Services, *Vital Statistics of the United States, 1992, Vol. 1, Natality*.

- ✓ The percentage of all births to Massachusetts women under age 20 (7.5%) declined slightly in 1995 from the previous year (7.8%).

Birth Rates among Women Ages 15-19

- ✓ The number of births per 1,000 women ages 15-19 continued to decline, reaching a new nine-year low of 29.2 in 1995. This rate, however, is higher than the 1981 rate of 27.7. The 1995 rate was about half the 1994 national birth rate to women ages 15-19 of 58.9.

Age Distribution of Teen Mothers

- ✓ The overall distribution of teen births (births to women under age 20) by mother's age has varied little in the past five years, with 18 to 19 year old women accounting for just over 60% of all teen births. In 1995, over one-third (37.3%) of all teen births were among 15-17 year olds, and 1.9% were among teens under age 15.
- ✓ The distribution of teen births by mother's age varied across race/Hispanic ethnicity groups. There was a lower proportion of births to white non-Hispanic teen mothers under age 18 (32.4%) than to Hispanic, black non-Hispanic, or Asian mothers under age 18 (47.9%, 46.7%, 46.1%, respectively).

Race/Hispanic Ethnicity Distribution of Teen Births

- ✓ In 1995, 3,209 (52.5%) of all teen births were to white non-Hispanic mothers; 1,727 (28.3%) were to Hispanic mothers; 865 (14.2%) were to black non-Hispanic mothers; and 163 (2.7%) were to Asian mothers.

Mother's Place of Birth

- ✓ Over 16% of teen mothers were born outside the fifty states in the United States; 8.5% of adult mothers (age 20 years and older) were foreign born.
- ✓ Maternal birthplace varied by race/Hispanic ethnicity and maternal age. In 1995, 100% of African-American teen mothers and 99.6% of African-American adult mothers were born in the U.S., while nearly 94% of Vietnamese teen mothers and 97.5% of Vietnamese adult mothers were born outside the U.S.
- ✓ Among teen mothers, Asians had the highest percentage of birth mothers born outside the U.S. (58.3%), while among adult mothers (age 20 years and older), Hispanics had the highest percentage born outside the U.S. (50.9%).

Previous Live Births

- ✓ Nearly one in five teen births (18.0%) in 1995 were to teen mothers who had at least one previous live birth (multiparous mothers); nearly one in thirty (3.2%) teen births were to mothers who had at least two previous live births.
- ✓ Almost one in four births (23.1%) to mothers ages 18-19 were born to mothers who had at least one previous live birth, whereas 10.2% of births to teens ages 12-17 were born to multiparous mothers.

Prenatal Care Payment Source

- ✓ Teen mothers received publicly-funded prenatal care at higher levels than mothers ages 20 and over. In 1995, 68.7% of teen mothers received publicly-funded prenatal care, compared to 21.6% of mothers ages 20 and over. Both percentages represent declines from the previous year (73.9% and 23.4%, respectively).

Marital Status

- ✓ Of all teen women giving birth in 1995, 89.9% were unmarried. The percentage of births to unmarried teens has been growing steadily since 1980 when it was 56.9%. This trend is reflected among births to women age 20 and older as well; the percentage of births to unmarried women increased from 10.7% in 1980 to 20.4% in 1995.

In-Hospital Paternity Acknowledgment

- ✓ Paternity acknowledgment occurred at a lower rate among births to unmarried teen women than among unmarried adult women. However, both groups experienced increases in paternity acknowledgment in 1995. Paternity acknowledgment among births to adult women increased from 54.5% in 1994 to 60.2% in 1995, while acknowledgment among teens increased from 50.3% in 1994 to 54.2% in 1995.
- ✓ While the in-hospital paternity acknowledgment percentage is consistently the lowest for infants of 12-17 year-old unmarried teen mothers, it has grown from 43.5% in 1993 to 50.0% in 1995. Similarly, the percentage increased among 18-19 year-old teen mothers from 51.6% to 57.1%, respectively.
- ✓ In-hospital paternity acknowledgment for 1995 births to teen women (ages <20 years) varied widely by race/Hispanic ethnicity, ranging from a high of 65.2% among white non-Hispanic mothers and a low of 29.8% among black non-Hispanic mothers, with Hispanics (50.0%) and Asians (31.5%) in between.

In-Hospital Paternity Acknowledgment and Father's Age

- ✓ Among all unmarried teen births with acknowledged paternity, 58.5% of the fathers were age 20 and over, and 12.8% were over age 25. Among infants with 16-17 year-old teen mothers,

44.3% of the fathers were at least 20 years old, while among infants with 12-15 year old teen mothers, 28.2% of the fathers were at least 20 years old.

II. Birth Outcomes and Prenatal Care

Low Birthweight and Gestational Age

- ✓ The overall percentage of low birthweight (LBW) births to teen mothers decreased slightly, from 9.1% to 8.6% between 1994 and 1995. Among teen births to black non-Hispanic women, the LBW percentage decreased from 13.1% in 1994 to 10.0% in 1995, while the percentages for the white non-Hispanic and Hispanic groups showed little change.
- ✓ As in previous years, the overall low birthweight (LBW) percentage among teen births was higher than the LBW percentage among births to women age 20 and over. In 1995, 9.7% of infants born to women under age 18 were LBW and 7.9% of infants born to 18-19 year olds were LBW, while 6.2% of infants born to women age 20 and over were LBW.
- ✓ The percentage of LBW infants varied by race/Hispanic ethnicity both among teen births and among births to women age 20 and over; the percentage of LBW infants among black non-Hispanic teen births (10.0%) was higher than among white non-Hispanic teen births (7.2%). The LBW percentages among Hispanic and Asian teen births (10.0% and 18.4%) also were higher than among white non-Hispanic teen births.
- ✓ The percentage of premature births (< 37 completed weeks gestation) to teens (9.5%) was larger than the percentage of premature births to women age 20 and over (7.8%). Prematurity among teen births was more common among infants of black non-Hispanic, Hispanic, and Asian teens (11.6%, 11.1%, 14.1%, respectively) than among infants of white non-Hispanic teens (8.0%).

Prenatal Care

- ✓ The overall percentage of teen mothers who had received adequate prenatal care (first trimester registration and at least nine prenatal visits) increased from 56.6% in 1990 to 66.5% in 1995.
- ✓ Between 1994 and 1995, the percentage of teen women receiving adequate prenatal care increased among black non-Hispanics (60.1% to 64.3%) and Asians (52.7% to 57.1%), and declined among Hispanic teen women (68.0% to 64.3%). The percentage changed little for white non-Hispanic teen women (71.3% to 69.2%).
- ✓ In 1995, 85.6% of adult mothers (20 years and older) had received adequate prenatal care; while 66.5% of teen mothers had adequate care.
- ✓ In 1995, 90.6% of mothers 20 years old and over received prenatal care starting in the first trimester, whereas only 72.7% of teen mothers started in the first trimester.

Cesarean Sections

- ✓ In 1995, cesarean sections occurred less frequently among teen births (12.3%) than among births to women age 20 and over (21.3%).

Breastfeeding

- ✓ The percentage of teen mothers indicating either that they were breastfeeding their infant during their hospital stay or that they intended to breastfeed increased from 31.9% in 1990 to 47.5% in 1995.
- ✓ Overall, the percentage of teen mothers (47.5%) who were breastfeeding or intended to breastfeed was lower than the percentage among mothers age 20 and over (67.9%).

Infant Mortality

- ✓ From 1993 to 1994 (the most recent data available for this analysis), the infant mortality rate (IMR, number of deaths per 1,000 infants born) among Massachusetts infants born to teen mothers was unchanged at 9.7, while the IMR among adult women declined very slightly, from 5.8 to 5.6. The difference in infant mortality rate between babies born to teen and adult mothers widened over time. In 1989, teen IMR was 64% higher than adult IMR; in 1994 teen IMR was 73% higher than adult IMR.
- ✓ In 1991, the most recent year for which U.S. teen birth infant mortality data are available, the U.S. IMR among teen births (ages <20 years) was 13.8, while the rate was 10.7 in Massachusetts.
- ✓ Unlike the previous 7 years, in 1994, the Massachusetts infant mortality rate among white teen mothers exceeded that of black teens (10.0 and 8.7, respectively).
- ✓ The risk of infant mortality increases as birthweight declines, and this effect is independent of maternal age. Among normal birthweight infants, the IMR was more than two times greater among teen mothers than among adult mothers (4.2 vs. 2.0, respectively).

Smoking during Pregnancy

- ✓ In 1995, Massachusetts teen mothers smoked cigarettes during pregnancy more frequently than adult mothers (21.5% vs. 12.9%).
- ✓ Among teen mothers, white non-Hispanics had the highest prevalence of smoking, 32.0%, almost three times that of the next highest race/ethnicity, black non-Hispanics, at 11.7%.

III. Birth Characteristics for 25 Massachusetts Communities with Highest Teen Birth Numbers

Statewide data can mask variation among individual communities. In this section, statistics are given for the 25 Massachusetts communities with the greatest number of births among teens in 1995.

Community Birth Rates

- ✓ The five Massachusetts communities with the highest teen birth rates in 1995 were Holyoke (117.8 births per 1,000 Holyoke women ages 15-19 years), Lawrence (110.6), Chelsea (86.2), Springfield (77.2), and Lowell (75.5). In 1995, about one in every five (21.3%) infants born among women ages 15-19 years in Massachusetts occurred in these five communities, which accounted for only 8.1% of births to women of all ages. Twenty-three out of the 25 communities with the greatest number of teen births in 1995 were also among the top 25 in 1994.
- ✓ Despite the continued high teen birth rates in these communities, Holyoke, Lawrence, Chelsea, and Springfield all experienced declines from 1994 to 1995. Holyoke's teen birth rate declined from 135.7 to 117.8, Lawrence from 129.1 to 110.6, Chelsea from 111.6 to 86.2, and Springfield from 96.6 to 77.2. On the other hand, Lowell experienced an increase from 60.5 to 75.5.

Race/Hispanic Ethnicity Distribution of Births

- ✓ In the communities with the four highest teen birth rates, the majority of teen births in 1995 were to Hispanic mothers. The percentage of younger teen mothers (< 18 years) who were Hispanic was 89.7% in Holyoke, 83.7% in Lawrence, 73.1% in Chelsea, and 53.5% in Springfield. Statewide, the largest proportion of younger teen births were to white non-Hispanic mothers (43.4%), followed by Hispanic (34.5%), black non-Hispanic (16.9%) and Asian (3.1%) mothers.

Low Birthweight (LBW)

- ✓ Among the 25 communities with the greatest number of 1995 teen births, the five communities with the highest percentages of LBW among teen births were Southbridge (18.2%), Pittsfield (14.5%), Leominster (13.1%), Salem (13.0%), and Taunton (12.9%).

Adequacy of Prenatal Care

- ✓ The five communities with the lowest percentages of adequate prenatal care for teen mothers were Lawrence (45.8%), Brockton (54.3%), New Bedford (55.6%), Springfield (57.5%), and Chelsea (59.5%).

✓ In 1995, Attleboro (12.5%), Lawrence (12.5%), Brockton (10.8%), Chelsea (8.1%), and Methuen (8.0%) had the highest percentages of teen births with inadequate or no prenatal care. However, the actual community-specific numbers of teen births with inadequate or no prenatal care are small, causing wide fluctuations in percentages from year to year.

Previous Live Births (Parity)

- ✓ The percentage of births among teens who had at least one previous live birth was highest in Southbridge (36.4%), Holyoke (29.3%), Chelsea (28.0%), Springfield (27.6%), and Fitchburg (25.3%). The statewide percentage of births to teen mothers who had at least one previous live birth was 18.0%.

Expected Educational Attainment

- ✓ The percentage of teen mothers who were one or more school grades behind the expected grade for their age in 1995 was highest in Southbridge (52.3%), Fitchburg (38.9%), Leominster (37.7%), Attleboro (37.5%), and Springfield (36.7%). Statewide, 26.3% of teen births were to mothers who were one or more grades behind.

In-Hospital Paternity Acknowledgment

- ✓ In 1995, Boston (30.9%), Springfield (44.1%), Lawrence (45.8%), Lynn (47.0%), and Worcester (47.7%) had the lowest percentage of teen births for which paternity was acknowledged in-hospital.

IV. Birth Characteristics for all 351 Communities and the 27 Community Health Network Areas (CHNA)

In this section, the following statistics are presented for each of the 351 cities/towns in Massachusetts and for each of the 27 CHNAs: the number of all births, the number of teen births by mother's age (< 18 years and < 20 years), the number of births among teen mothers (< 20 years) who started prenatal care in the first trimester, and the number whose prenatal care was paid for with public funds. The Community Health Network Areas are aggregations of all Massachusetts cities and towns into 27 groups for the purpose of tracking health status and implementing health improvement efforts. The community groupings were modified in 1997 and the data here reflect the new groupings (see Appendix for most recent CHNA city/town groupings).

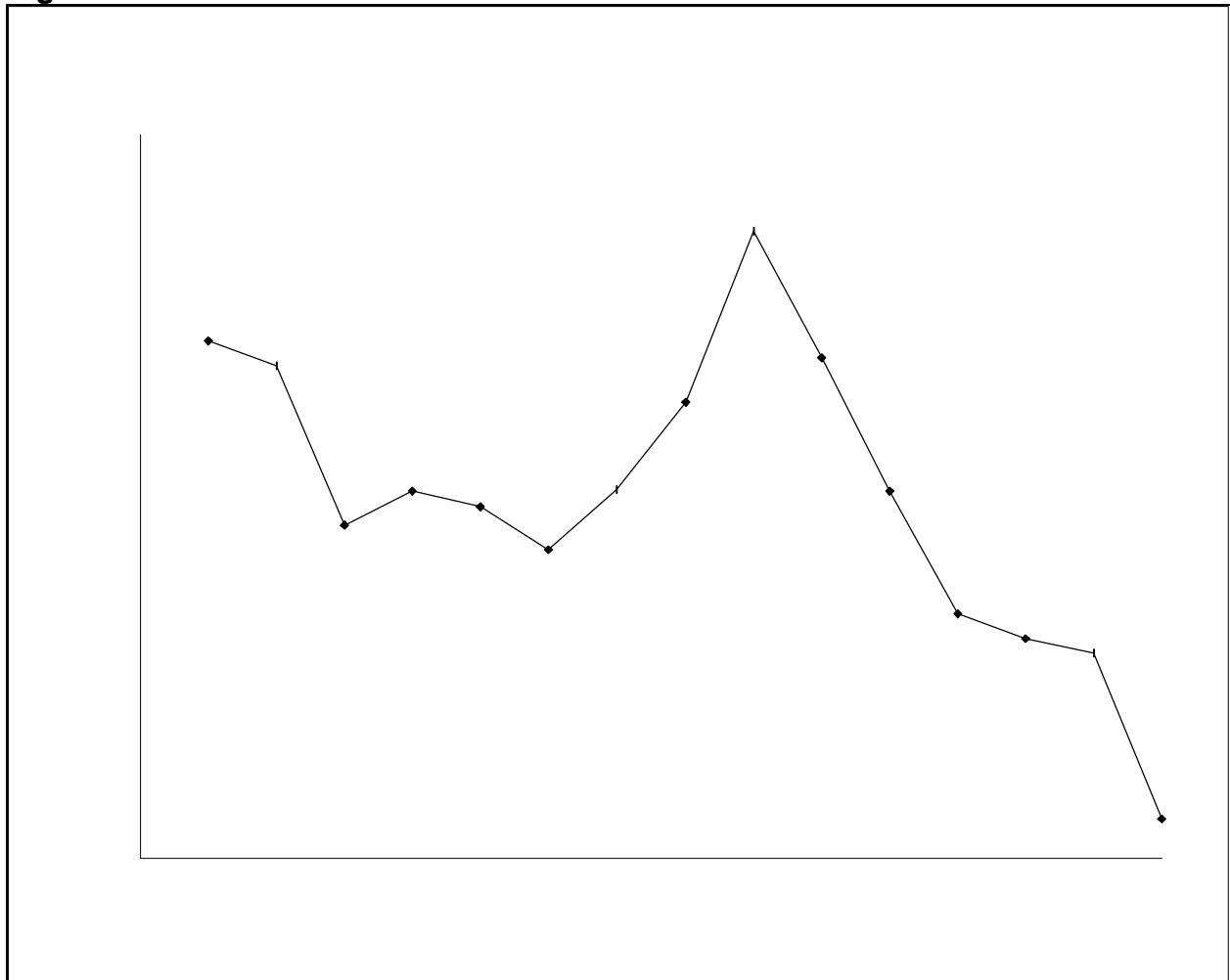
- ✓ In 1995, the Greater Holyoke Area had the highest percentage of teen births (14.7%) (almost double the statewide percentage of 7.5%), followed by the Greater Springfield Community Health Network (14.0%) and the Greater Lawrence Area (13.9%).

✓ In 1995, the lowest percentage of teen mothers receiving prenatal care starting in the first trimester (63.1%) was found in the Greater Fall River Area. The Brockton CHNA had the next lowest percentage (63.4%).

I.

*Demographic
and Birth
Characteristics*

Figure 1.

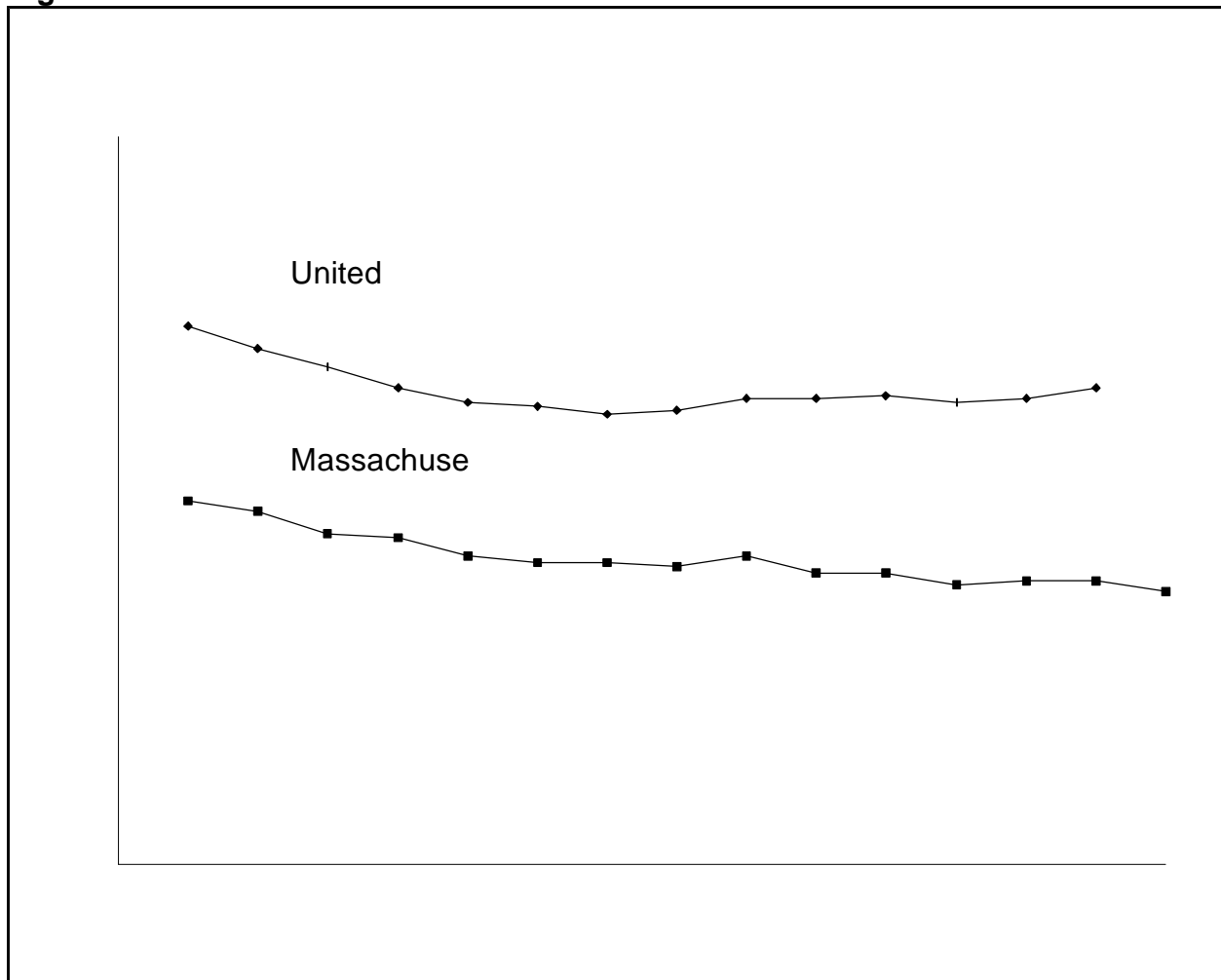


Source: Registry of Vital Records and Statistics, MDPH, 1981-1995.

¹ Births are resident live births.

- In 1995, 6,107 infants were born to women under age 20, a decline of 460 births from the previous year.
- Since 1980, the number of births to teens has declined by 21.4% (data not shown).
- Since 1990, the number of births to teens has declined by 17.3%, whereas the number of births to all women in Massachusetts declined by 11.8% (data not shown).

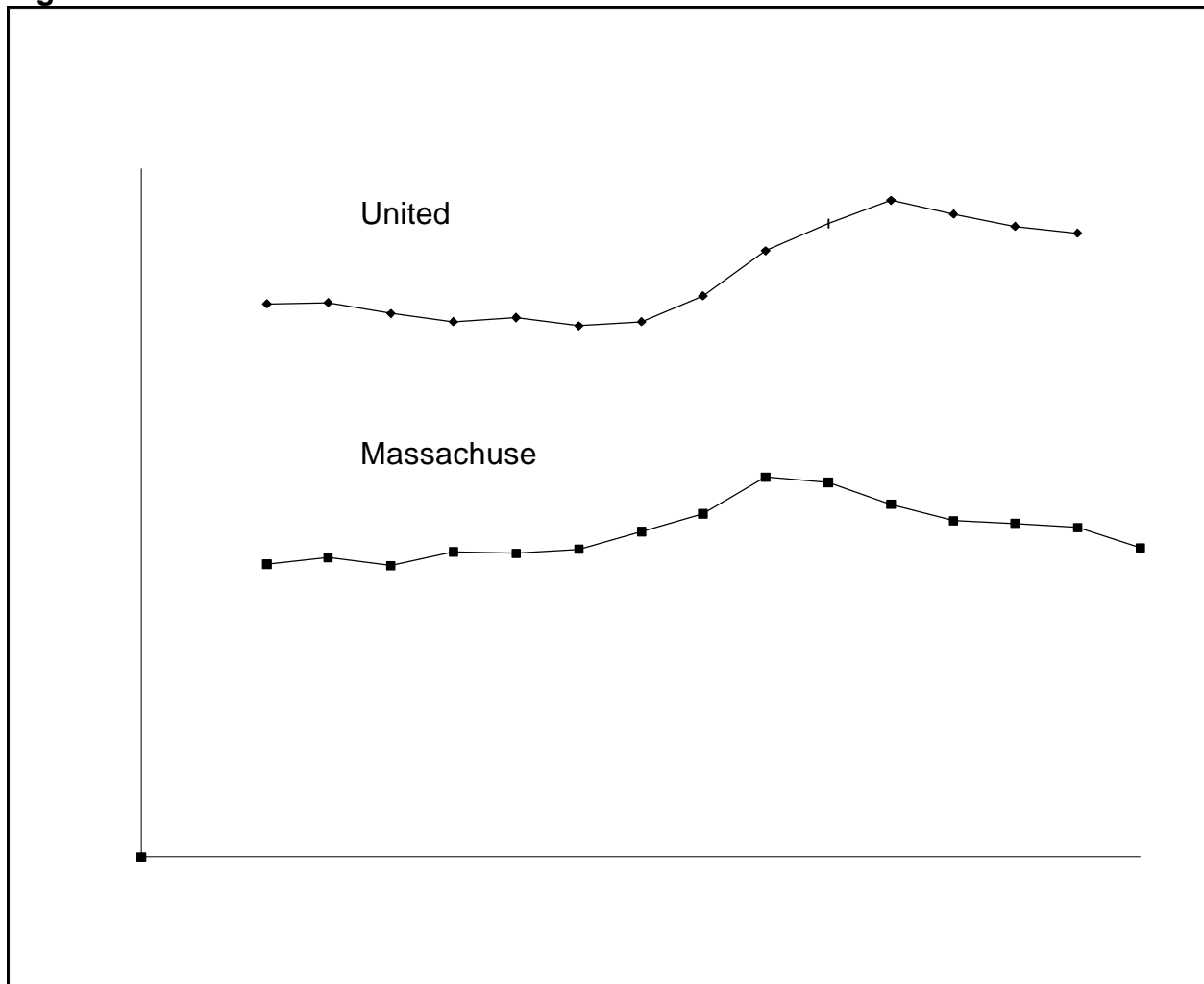
Figure 2.



Sources: Registry of Vital Records and Statistics, MDPH, 1981-1995; National Center for Health Statistics, 1981-1994.

- In 1995, 7.5% of births in Massachusetts were to women under age 20. This is the lowest percentage in the last 15 years.
- The 1995 Massachusetts percentage of births to women under age 20 (7.5%) is well below the 1994 national percentage of 13.1% (1995 national data not yet available).

Figure 3.



Sources: Registry of Vital Records and Statistics, MDPH, 1981-1995; National Center for Health and Statistics, 1981-1994

- The Massachusetts teen birth rate (births per 1,000 women ages 15-19) declined slightly from 31.2 in 1994 to 29.2 in 1995.
- The Massachusetts teen birth rate has declined 18.7% since 1989 (35.9), when it was at its highest point in the last 15 years.
- The 1995 Massachusetts teen birth rate was half of the 1994 national teen birth rate (58.9) (1995 national data not yet available).

Table 1.
Trends in Teen Births by Mother's Age
Massachusetts: 1990-1995

Mother's Age	1990		1991		1992		1993		1994		1995	
	N	%	N	%	N	%	N	%	N	%	N	%
12-19	7,382	100.0	7,014	100.0	6,676	100.0	6,606	100.0	6,567	100.0	6,107	100.0
12-13	21	0.3	20	0.3	18	0.3	16	0.2	24	0.4	19	0.3
14	103	1.4	102	1.5	103	1.5	121	1.8	131	2.0	98	1.6
15	351	4.8	372	5.3	341	5.1	360	5.4	371	5.6	356	5.8
16	810	11.0	758	10.8	782	11.7	741	11.2	822	12.5	721	11.8
17	1,344	18.2	1,391	19.8	1,327	19.9	1,259	19.1	1,244	18.9	1,203	19.7
18	2,014	27.3	1,910	27.2	1,753	26.3	1,872	28.3	1,758	26.8	1,648	27.0
19	2,739	37.1	2,461	35.1	2,352	35.2	2,237	33.9	2,217	33.8	2,062	33.8

Source: Registry of Vital Records and Statistics, MDPH: 1990-1995.

- In 1995, 60.8% of all teen births were to women ages 18-19 years, 37.3% were to women ages 15-17 years, and 1.9% were to women under age 15.
- The proportion of all teen births that are born to women under age 18 was virtually unchanged from the previous year (39.5% in 1994 and 39.2% in 1995).
- There were 19 births to women 12 or 13 years old in 1995, 5 fewer than the previous year.

Table 2.
Trends in Teen Births¹ by Mother's Race/Hispanic Ethnicity
Massachusetts: 1990-1995

Mother's Race/Ethnicity	1990		1991		1992		1993		1994		1995	
	N	%	N	%	N	%	N	%	N	%	N	%
Total	7,382	100.0	7,014	100.0	6,676	100.0	6,606	100.0	6,567	100.0	6,107	100.0
White*	4,200	56.9	3,836	54.7	3,547	53.1	3,450	52.2	3,303	50.3	3,209	52.5
Black*	1,121	15.2	1,059	15.1	1,058	15.8	1,003	15.2	997	15.2	865	14.2
Hispanic	1,714	23.2	1,769	25.2	1,737	26.0	1,809	27.4	1,950	29.7	1,727	28.3
Asian*	233	3.2	194	2.8	178	2.7	180	2.7	188	2.9	163	2.7
Other*	105	1.4	145	2.1	147	2.2	156	2.4	126	1.9	134	2.2
Unknown	9	0.1	11	0.2	9	0.1	8	0.1	3	**	9	0.1

Source: Registry of Vital Records and Statistics, MDPH: 1990-1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Births to women ages 12-19.

- The majority of births among Massachusetts teens (< 20 years of age) continues to be to white non-Hispanic women (52.5%).
- The proportion of teen births born to black non-Hispanic women declined from 15.2% in 1994 to 14.2% in 1995. A slight decline was also seen in the proportion of teen births born to Hispanic women (29.7% in 1994 to 28.3% in 1995).

Table 3.
Teen Births by Mother's Age and Race/Hispanic Ethnicity
Massachusetts: 1995

Mother's Age	Total		White*		Black*		Hispanic		Asian*		Other*		Unknown	
	N	%¹	N	%¹	N	%¹	N	%¹	N	%¹	N	%¹	N	%¹
< 20	6,107	100.0	3,209	52.5	865	14.2	1,727	28.3	163	2.7	134	2.2	9	0.1
18-19	3,710	60.7	2,169	67.6	461	53.3	901	52.2	88	54.0	83	62.0	8	88.9
16-17	1,924	31.5	877	27.3	315	36.4	633	36.7	56	34.4	42	31.3	1	**
12-15	473	7.7	163	5.1	89	10.3	193	11.2	19	11.7	9	6.7	0	0.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Percents are based on column totals. Percentages may not add up to 100 due to rounding.

- As seen in previous years, a lower proportion of white non-Hispanic teen births in 1995 were to mothers under age 18 (32.4%) than among Hispanic, black non-Hispanic, or Asian teen births (47.9%, 46.7%, and 46.1%, respectively).
- The percentage of white non-Hispanic teen births that were born to mothers under age 16 (5.1%) was about half that of other race/Hispanic ethnicity groups.

Table 4.
Births by Mother's Race/Hispanic Ethnicity and Age
Massachusetts: 1995

Mother's Race/Ethnicity	Under 18 Years		18 to 19 Years		Under 20 Years		20 Years & Over		All Ages	
	N	% ¹	N	% ¹	N	% ¹	N	% ¹	N	% ¹
Total Births	2,397	100.0	3,710	100.0	6,107	100.0	75,455	100.0	81,562	100.0
White*	1,040	43.4	2,169	58.5	3,209	52.5	59,820	79.3	63,029	77.3
Black*	404	16.9	461	12.4	865	14.2	4,989	6.6	5,854	7.2
African-American	308	12.8	305	8.2	613	10.0	2,434	3.2	3,047	3.7
West Indian	14	0.6	37	1.0	51	0.8	507	0.7	558	0.7
Haitian	21	0.9	29	0.8	50	0.8	903	1.2	953	1.2
Other Black	61	2.5	90	2.4	151	2.5	1,145	8.4	1,296	1.6
Hispanic	826	34.5	901	24.3	1,727	28.3	6,350	8.4	8,077	9.9
Puerto Rican	634	26.4	633	17.1	1,267	20.7	2,792	3.7	4,059	5.0
Dominican	90	3.8	114	3.1	204	3.3	1,181	1.6	1,385	1.7
Central Amer.	46	1.9	66	1.8	112	1.8	910	1.2	1,022	1.3
Other Hispanic	56	2.3	88	2.4	144	2.4	1,467	1.9	1,611	2.0
Asian*	75	3.1	88	2.4	163	2.7	3,273	4.3	3,436	4.2
Vietnamese	19	0.8	30	0.8	49	0.8	566	0.8	615	0.8
Cambodian	33	1.4	27	0.7	60	1.0	424	0.6	484	0.6
Other SE Asian	11	0.5	13	0.4	24	0.4	130	0.2	154	0.2
Chinese	2	**	4	**	6	0.1	1,039	1.4	1,045	1.3
Other Asian	10	0.4	14	0.4	24	0.4	1,114	1.5	1,138	1.4
Other*	51	2.1	83	2.2	134	2.2	838	1.1	972	1.2
Unknown	1	**	8	0.2	9	0.1	185	0.2	194	0.2

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Percentages are based on column totals.

- The race/Hispanic ethnicity distribution of births continued to vary across mother's age groups. In 1995, while 8.4% and 6.6% of births to women 20 years and older were born to Hispanic and black non-Hispanic mothers, respectively, these proportions were much higher among teen births (28.3% and 14.2%, respectively).
- Among teen mothers (< 20 years of age) of black non-Hispanic or Hispanic origin, a higher proportion are under age 18 (16.9% and 34.5%, respectively) than among mothers ages 18 or 19 years (12.4% and 24.3%, respectively).
- The largest ethnic minority group among teen mothers in 1995 was Puerto Rican (20.7%). They comprise 73.4% of teen births born to Hispanic mothers.

Table 5.
Births by Mother's Age, Place of Birth, and Race/Hispanic Ethnicity
Massachusetts: 1995

Mother's Race/Ethnicity	Under 20 Years				20 Years and Over			
	United States ¹		Other ²		United States ¹		Other ²	
	N	% ³	N	% ³	N	% ³	N	% ³
Total Births	5,117	83.8	990	16.2	69,047	91.5	6,408	8.5
White*	3,168	98.7	41	1.3	58,842	98.4	978	1.6
Black*	822	95.0	43	5.0	4,026	80.7	963	19.3
African Amer.	613	100.0	0	0.0	2,425	99.6	9	0.4
West Indian	48	94.1	3	**	482	95.1	25	4.9
Haitian	13	26.0	37	74.0	20	2.2	883	97.8
Other Black	148	98.0	3	**	1,099	96.0	46	4.0
Hispanic	924	53.5	803	46.5	3,118	49.1	3,232	50.9
Puerto Rican	663	52.3	604	47.7	1,147	41.1	1,645	58.9
Dominican	57	27.9	147	72.1	90	7.6	1,091	92.4
Central Amer.	69	61.6	43	38.4	505	55.5	405	44.5
Other Hispanic	135	93.8	9	6.3	1,376	93.8	91	6.2
Asian*	68	41.7	95	58.3	2,099	64.1	1,174	35.9
Vietnamese	3	**	46	93.9	14	2.5	552	97.5
Cambodian	15	25.0	45	75.0	0	0.0	424	100.0
Other SE Asian	24	100.0	0	0.0	125	96.2	5	3.8
Chinese	3	**	3	**	934	89.9	105	10.1
Other Asian	23	95.8	1	**	1,026	92.1	88	7.9
Other*	126	94.0	8	6.0	791	94.4	47	5.6
Unknown	9	100.0	0	0.0	171	92.4	14	7.6

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

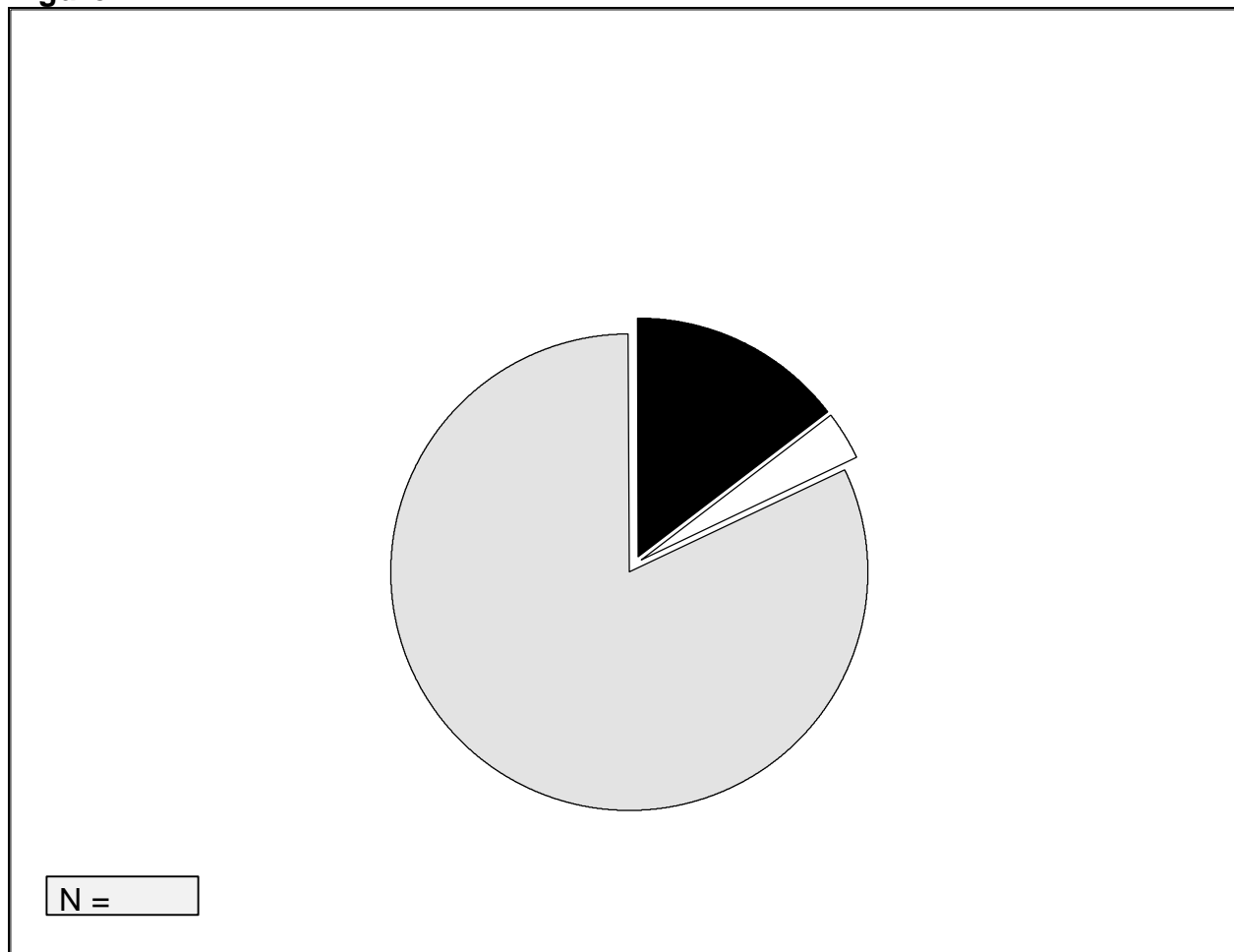
** Calculations based on fewer than five events are excluded.

¹ United States includes the 50 states and the District of Columbia.

- ² Rest of world.
- ³ Percentages are based on row totals within each age category.

- Over 16% of teen mothers were born outside the fifty states in the United States; 8.5% of adult (20 years and older) mothers were born outside the U.S.
- Maternal birthplace varied by race/Hispanic ethnicity and maternal age; 100% of African-American teen mothers and 99.6% of African-American adult mothers were born in the U.S., while nearly 94% of Vietnamese teen mothers and 97.5% of Vietnamese adult mothers were born outside the U.S.
- Hispanics were the racial/ethnic group whose birth mothers were the most evenly divided between U.S. and foreign birthplace; 46.5% of Hispanic teen mothers and 50.9% of Hispanic adult mothers were born outside the U.S.
- Among teen mothers, Asians had the highest percentage of birth mothers born outside the U.S. (58.3%), while among adult mothers Hispanics had the highest percentage born outside the U.S. (50.9%).

Figure 4.



Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Percentages are based on births with known parity.

¹ Parity is defined as number of live births including this birth. The vast majority of second live birth deliveries were singletons (96.5%); 3.5% of second live birth deliveries were due to twin or higher order multiple births.

- In 1995, 18% of births to teens were to mothers with at least one prior live birth, down slightly from the 1994 figure of 20.3% (data not shown); 3.2% of teen births were to mothers with 2 or more prior live births, down from the 1994 figure of 4.1% (data not shown).

Table 6.
Births to Multiparous¹ Mothers by Mother's Race/Hispanic Ethnicity and Age
Massachusetts: 1995

Unmarried Mother's Age	White*		Black*		Hispanic		Asian*		Other*		Unknown		Total	
	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²
All Ages	35,460	56.3	3,572	61.0	4,826	59.8	1,791	52.1	528	54.3	33	17.0	46,210	56.7
20 +	35,041	58.6	3,392	68.0	4,393	69.2	1,750	53.5	505	60.3	33	17.8	45,114	59.8
< 20	419	13.1	180	20.8	433	25.1	41	25.2	23	17.2	0.0	0.0	1,096	18.0
18-19	368	17.0	133	28.9	308	34.2	28	31.8	20	24.1	0.0	0.0	857	23.1
12-17	51	4.9	47	11.6	125	15.1	13	17.3	3	**	0.0	0.0	239	10.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Multiparous is having had at least one previous live birth.

² Percentages are based on the total number of births in each race/Hispanic ethnicity-age group (data not shown).

- The percentage of teen mothers ages 18 or 19 who had had at least one previous live birth declined from 26.3% in 1994 to 23.1% in 1995. A similar trend was seen for mothers ages 12 to 17 years (11.2% in 1994 to 10.0% in 1995) (1994 data not shown).
- Among all teen mothers in 1995, Hispanic and Asian women had the highest proportion of multiparous mothers (25.1% and 25.2%, respectively).

Table 7.
Births by Mother's Race/Hispanic Ethnicity, Age,
and Prenatal Care Payment Source
Massachusetts: 1995

Mother's Race/Ethnicity	12 to 17 Years		18 to 19 Years		Under 20 Years		20 Years & Over		All Ages	
	N	% ¹	N	% ¹	N	% ¹	N	% ¹	N	% ¹
Total Births²	2,397	100.0	3,710	100.0	6,107	100.0	75,455	100.0	81,562	100.0
Public³	1,594	66.5	2,600	70.1	4,194	68.7	16,262	21.6	20,456	25.1
Private⁴	607	25.3	826	22.3	1,433	23.5	53,632	71.1	55,065	67.5
White*	1,040	100.0	2,169	100.0	3,209	100.0	59,820	100.0	63,029	100.0
Public	569	54.7	1,375	63.4	1,944	60.6	8,587	14.4	10,531	16.7
Private	377	36.3	630	29	1,007	31.4	47,050	78.7	48,057	76.2
Black*	404	100.0	461	100.0	865	100.0	4,989	100.0	5,854	100.0
Public	265	65.6	331	71.8	596	68.9	2,384	47.8	2,980	50.9
Private	110	27.2	89	19.3	199	23	2,158	43.3	2,357	40.3
Hispanic	826	100.0	901	100.0	1,727	100.0	6,350	100.0	8,077	100.0
Public	668	80.9	771	85.6	1,439	83.3	3,989	62.8	5,428	67.2
Private	95	11.5	74	8.2	169	9.8	1,882	29.6	2,051	25.4
Asian*	75	100.0	88	100.0	163	100.0	3,273	100.0	3,436	100.0
Public	56	74.7	66	75.0	122	74.8	949	29.0	1,071	31.2
Private	13	17.3	18	20.5	31	19	2,085	63.7	2,116	61.6
Other*	51	100.0	83	100.0	134	100.0	838	100.0	972	100.0
Public	36	70.6	57	68.7	93	69.4	342	40.8	435	44.8
Private	12	23.5	15	18.1	27	20.1	408	48.7	435	44.8

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

¹ Percentages are based on race/Hispanic ethnicity totals. Percentages for Public and Private do not add up to 100.0 because total includes Workers Compensation, self pay, and free care.

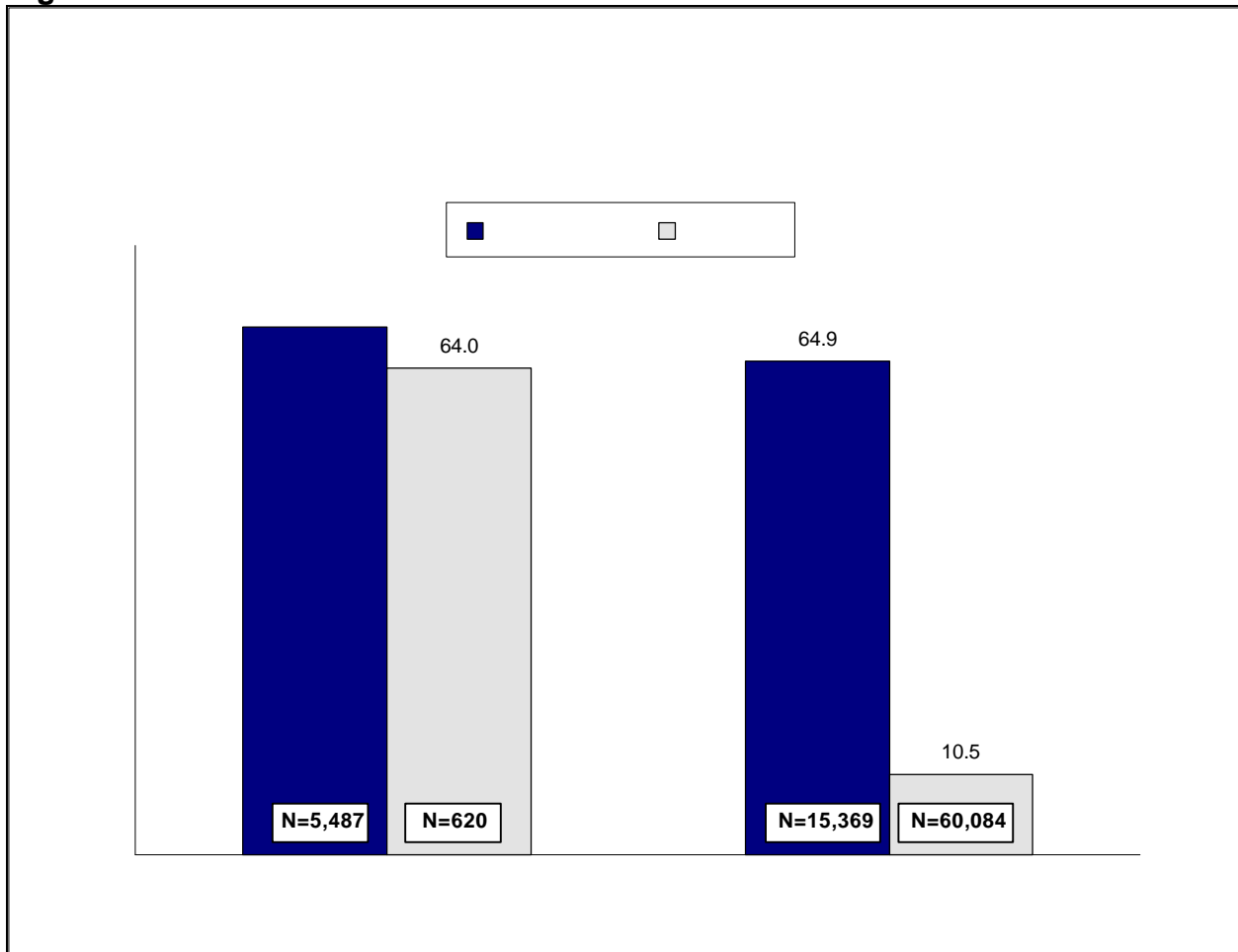
² Records with unknown mother's race/Hispanic ethnicity are included in Total Births.

³ Public: Medicaid, Medicare, Healthy Start and other government programs.

⁴ Private: Blue Cross/Blue Shield, other commercial insurance, HMO. HMO may include Medicaid recipients in managed care programs.

- Almost 69% of teen mothers had their prenatal care supported through public funds, compared to nearly 22% of mothers ages 20 and over, a contrast that holds across race/Hispanic ethnicity. The percentage of teens receiving publicly funded prenatal care declined 5.2% from 1994's level (73.9%). The percentage of mothers ages 20 and over receiving publicly funded prenatal care also declined from 23.4% in 1994 to 21.6% in 1995 (1994 data not shown).
- The percentage of teen mothers receiving publicly-funded prenatal care was slightly higher for 18-19 year-olds (70.1%) than for mothers under age 18 (66.5%).
- The percentage of teen mothers receiving publicly-funded prenatal care varied by race/Hispanic ethnicity: 60.6% of white non-Hispanic teen mothers, 68.9% of black non-Hispanic teen mothers, 83.3% of Hispanic teen mothers, and 74.8% of Asian teen mothers received publicly funded prenatal care. All of these percentages declined from their corresponding 1994 values (data not shown).
- There was less variation across race/Hispanic ethnicity groups among teens in the percentage of mothers receiving publicly-funded prenatal care than among women ages 20 and over. Among teens, the difference between the highest and lowest proportions of mothers receiving publicly funded prenatal care (Hispanics and white non-Hispanics, respectively) was 22.7%, while among mothers 20 years and over, the corresponding difference was 48.4%

Figure 5.



Source: Registry of Vital Records and Statistics, MDPH, 1995

- In 1995, 69.2% of *unmarried* teen mothers and 64.0% of *married* teen mothers received publicly funded prenatal care. These figures are slightly lower than the corresponding 1994 data (74.5% and 68.3%, respectively, 1994 data not shown). The contrast is much greater for adult mothers, with 64.9% of *unmarried* adult mothers receiving publicly funded prenatal care while only 10.5% of *married* adult mothers received publicly funded prenatal care.

Table 8.
Trends in Births to Unmarried Mothers by Age of Mother
Massachusetts: 1990-1995

Unmarried Mother's Age	1990		1991		1992		1993		1994		1995	
	N	% ¹	N	% ¹	N	% ¹	N	% ¹	N	% ¹	N	% ¹
All Ages	22,836	24.7	22,852	25.9	22,612	25.9	22,345	26.4	22,302	26.6	20,857	25.6
20 +	16,687	19.6	16,843	20.8	16,750	20.8	16,462	21.1	16,416	21.3	15,370	20.4
< 20	6,149	83.3	6,009	85.7	5,862	87.8	5,883	89.1	5,886	89.6	5,487	89.9
18-19	3,715	78.2	3,561	81.5	3,462	84.3	3,515	85.5	3,433	86.4	3,210	86.5
12-17	2,433	92.5	2,448	92.6	2,400	93.4	2,368	94.8	2,453	94.6	2,277	95.0

Source: Registry of Vital Records and Statistics, MDPH, 1990-1995.

¹ Percentages are based on total number of births within each category.

- In 1995, the percentage of all Massachusetts births to unmarried women decreased slightly to 25.6% from the 1994 percentage of 26.6%, the highest proportion in recorded history. This was the first decrease in the last 6 years.
- This decrease was not found among teen mothers, for whom the percentage of births to unmarried women rose very slightly (from 89.6% in 1994 to 89.9% in 1995).
- In 1995, 95% of births to mothers ages 12-17 were to unmarried women.

Table 9.
Births to Unmarried Mothers by Mother's Race/Hispanic Ethnicity and Age
Massachusetts: 1995

Unmarried Mother's Age	White*		Black*		Hispanic		Asian*		Other*		Unknown		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
All Ages	11,322	18.0	3,567	60.9	4,805	59.5	681	19.8	432	44.4	50	25.8	20,857	25.6
20+	8,466	14.2	2,729	54.7	3,286	51.8	532	16.3	316	37.7	41	22.2	15,370	20.4
< 20	2,856	89.0	838	96.9	1,519	88.0	149	91.4	116	86.6	9	100.0	5,487	89.9
18-19	1,858	85.7	437	94.8	763	84.7	77	87.5	67	80.7	8	100.0	3,210	86.5
12-17	998	96.0	401	99.3	756	91.5	72	96.0	49	96.1	1	**	2,277	95.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

- The overall percentage of births to unmarried mothers varied substantially by race/Hispanic ethnicity in 1995, as it has in previous years. Among births to women of all ages, 18% of white non-Hispanic women were unmarried while 60.9% of black non-Hispanic, 59.5% of Hispanic women and 19.8% of Asian women were unmarried.
- There is less variation in marital status by race/Hispanic ethnicity among teen mothers (< 20 years of age); 89% of white non-Hispanic teen mothers were unmarried while 96.9% of black non-Hispanic, 88% of Hispanic and 91.4% of Asian teen mothers were unmarried.

Table 10.
Trends in In-Hospital Paternity Acknowledgment¹ by Age of Unmarried Mother
Massachusetts: 1990-1995

Unmarried Mother's Age	1990		1991		1992		1993		1994		1995	
	N	%	N	%	N	%	N	%	N	%	N	%
All Ages	10,697	46.8	10,708	46.9	10,874	48.1	11,329	50.7	11,904	53.4	12,223	58.6
20+	7,898	47.3	7,992	47.5	8,192	48.9	8,487	51.6	8,944	54.5	9,251	60.2
< 20	2,799	45.5	2,716	45.2	2,682	45.6	2,842	48.3	2,960	50.3	2,972	54.2
18-19	1,764	47.5	1,664	46.7	1,631	47.1	1,812	51.6	1,785	52.0	1,833	57.1
12-17	1,035	42.5	1,052	43.0	1,051	43.8	1,030	43.5	1,175	47.9	1,139	50.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

¹ Paternity acknowledgment: voluntary self-acknowledgment by fathers or acknowledgment through legal action. This data reflects data collected in hospitals, at time of birth, only (see Glossary for further explanation).

- The overall percentage of births to unmarried women with paternity acknowledgment in the birth hospital continued to increase, from 53.4% in 1994 to 58.6% in 1995. This represents a relative increase since 1990 of over 25%.
- Paternity acknowledgment occurred at a lower rate among unmarried teens than among unmarried adults. However, both groups experienced increases in paternity acknowledgment in 1995. Paternity acknowledgment among births to adults increased from 54.5% in 1994 to 60.2% in 1995, while acknowledgment among teens increased from 50.3% in 1994 to 54.2% in 1995.
- An increase in paternity acknowledgment for infants born to unmarried teens occurred among both young teen mothers (12-17 years old) and older teens (18-19 years old). The percentage of paternity acknowledgment for births to older unmarried teens increased from 52% in 1994 to 57.1% in 1995, while the corresponding percentage among younger unmarried teen women increased from 47.9% in 1994 to 50% in 1995.

Table 11.
In-Hospital Paternity Acknowledgment¹ by Unmarried Mother's
Race/Hispanic Ethnicity and Age
Massachusetts: 1995

Unmarried Mother's Age	White*		Black*		Hispanic		Asian*		Other*		Unknown		Total	
	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²
All Ages	7,896	69.7	1,338	37.5	2,492	51.9	231	33.9	235	54.4	31	62.0	12,223	58.6
20+	6,035	71.3	1,088	39.9	1,733	52.7	184	34.6	183	57.9	28	68.3	9,251	60.2
< 20	1,861	65.2	250	29.8	759	50.0	47	31.5	52	44.8	3	**	2,972	54.2
18-19	1,239	66.7	144	33.0	391	51.3	25	32.5	31	46.3	3	**	1,833	57.1
12-17	622	62.3	106	26.4	368	48.7	22	30.6	21	42.9	0.0	0.0	1,139	50.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Paternity acknowledgment: voluntary self-acknowledgment by fathers or acknowledgment through legal action. This table reflects data collected in hospitals, at time of birth, only (see Glossary for further explanation).

² Percentages are based on the total number of births to unmarried mothers within each category.

- In-hospital paternity acknowledgment varied widely by race/Hispanic ethnicity, ranging from a high of 69.7% among white, non-Hispanic unmarried mothers of all ages to a low of 33.9% among Asian unmarried mothers of all ages. However, paternity acknowledgment increased from 1994 among all race/Hispanic ethnic groups (data not shown).
- The variation in paternity acknowledged across race/Hispanic ethnicity groups was seen among births to both adult and teen unmarried women. For both age groups, white non-Hispanics had the highest percents, while black non-Hispanics and Asians had the lowest.

Table 12.
Father's Age by Unmarried Mother's Age When Father Acknowledged Paternity¹
Massachusetts: 1995

Mother's Age	Father's Age													
	12-17		18-19		20-24		25-29		30-34		35 and Over		Total ³	
	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²
20 +	48	0.5	269	2.9	2,534	27.4	2,827	30.6	1,933	20.9	1,635	17.7	9,250	100.0
< 20	414	13.9	818	27.5	1,359	45.7	273	9.2	80	2.7	27	0.9	2,973	100.0
< 18	290	25.5	374	32.8	391	34.3	55	4.8	21	1.8	7	0.6	1,139	100.0
18-19	124	6.8	444	24.2	968	52.8	218	11.9	59	3.2	20	1.1	1,833	100.0
16-17	205	21.6	324	34.1	353	37.1	46	4.8	16	1.7	6	0.6	951	100.0
12-15	85	45.2	50	26.6	38	20.2	9	4.8	5	2.7	1	**	188	100.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

** Calculations based on fewer than five events are excluded.

¹ Paternity acknowledgment: voluntary self-acknowledgment by fathers or acknowledgment through legal action. This table reflects data collected in hospitals, at time of birth, only (see Glossary for further explanation).

² Percentages are based on the total number of fathers whose ages were identified by unmarried mothers within each category.

³ The Ns may not add up to the Total because the unknown values were excluded from the table.

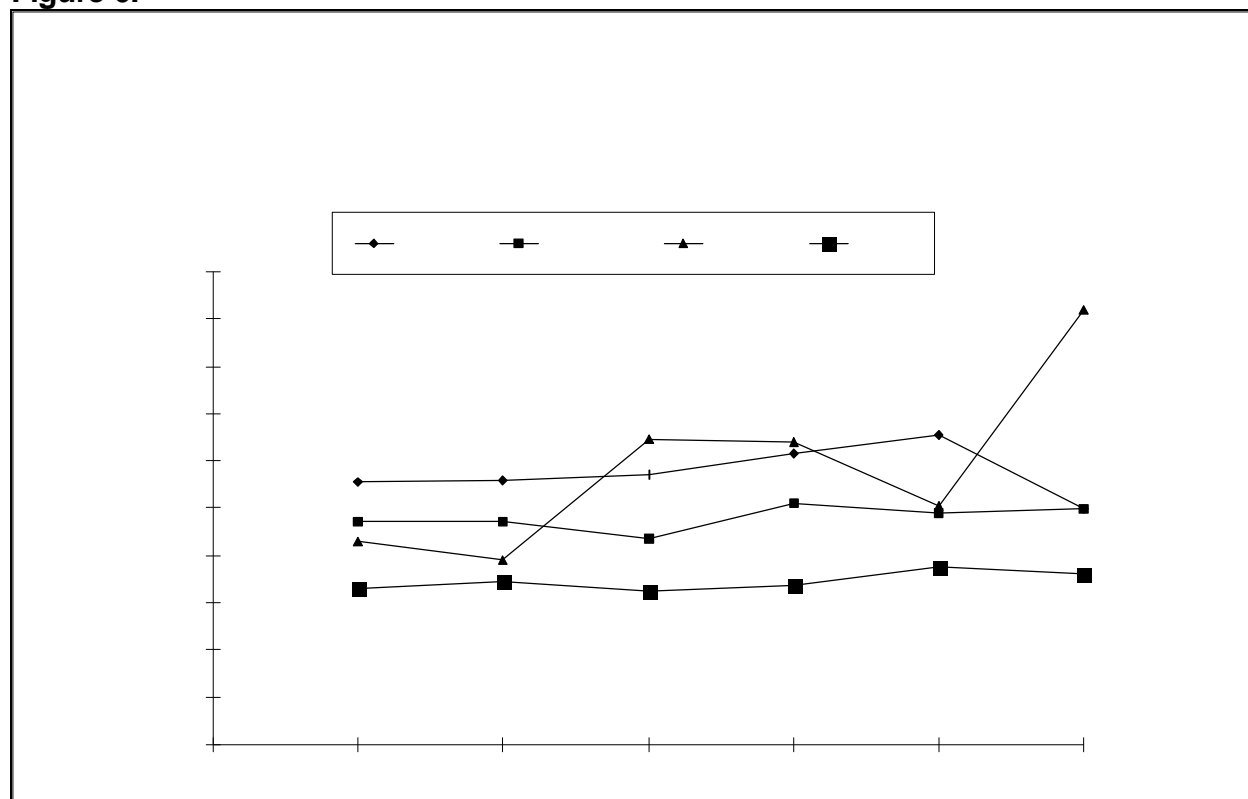
- For unmarried women ages 20 and over, about 97% of the named fathers were also 20 and over, the same percentage as 1994 (data not shown). For unmarried teens, 58.5% of the named fathers were 20 and over, a 2.0% increase over 1994.

Among unmarried teen mothers ages 16-17, 44.3% of the fathers named were 20 and over, an increase from 1994 of 2.8%, while for 12-15 year old unmarried mothers, 28.2% of named fathers were 20 and over, an increase from 1994 of 5.5% (1994 data not shown).

II.

*Birth Outcomes and
Prenatal Care*

Figure 6.



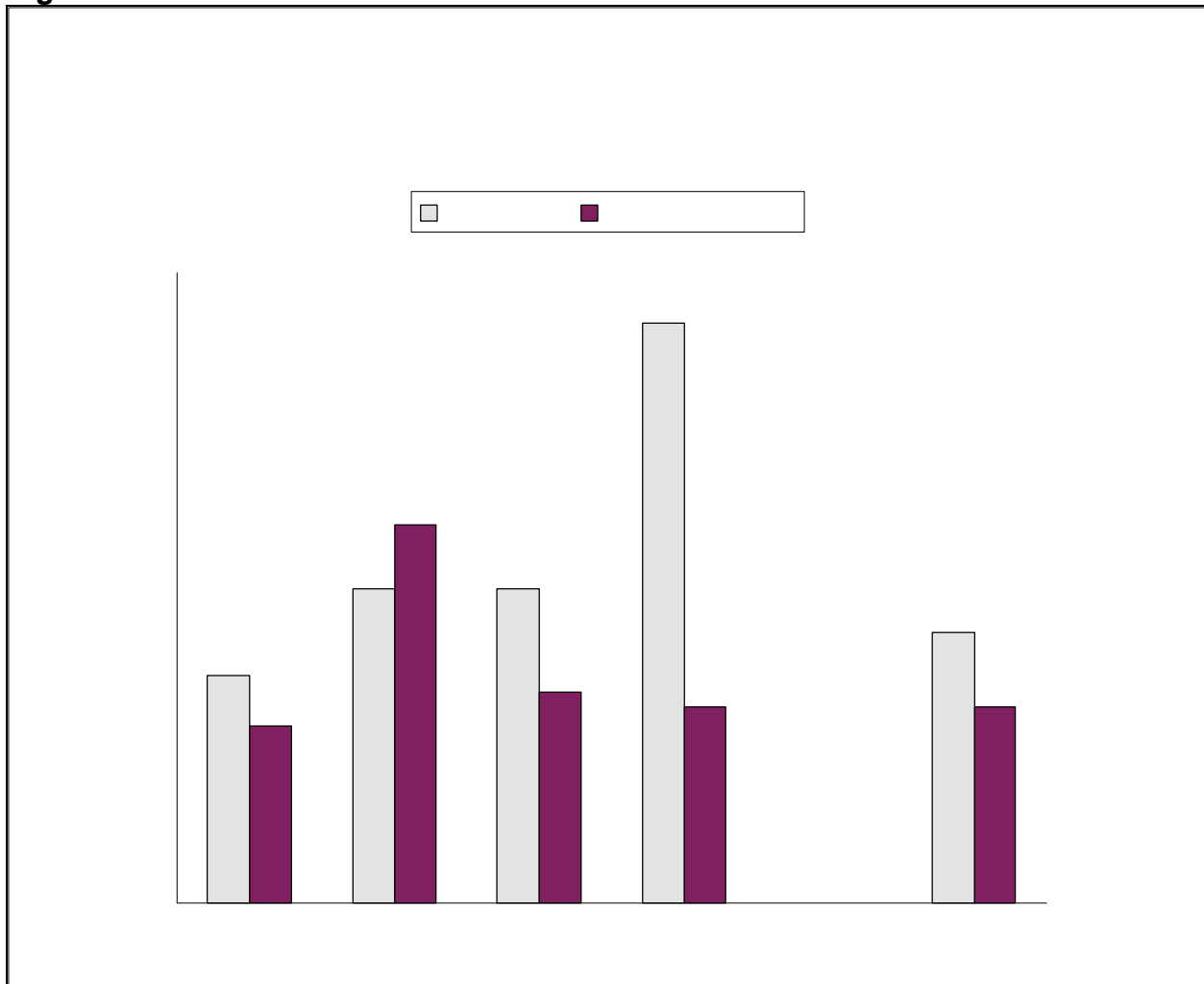
Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

¹ Low birthweight: < 2,500 grams or 5.5 pounds.

- The occurrence of low birthweight (LBW) among teen births (ages 12-19) continues to differ across race/Hispanic ethnicity groups, with white non-Hispanic teens generally having the lowest percentages of LBW. This same pattern is seen among births to older women (ages 20 and older) (see Figure 7).
- The percentage of LBW infants born to white non-Hispanic and Hispanic teen mothers changed little between 1994 and 1995 (7.5% and 9.8% in 1994 to 7.2% and 10.0% in 1995, respectively).
- In 1995, the percentage of LBW births to black non-Hispanic teens decreased for the first time since 1990 (from 13.1% in 1994 to 10.0% in 1995).
- *Because the number of LBW births was small among Asian teen mothers in 1994 and 1995 (19 and 30, respectively), their LBW percentages fluctuated widely between the two years. The percentage of LBW birthweight births to Asian teen mothers increased from 10.1% in 1994 to 18.4% in 1995, a difference of 11 births.*

Figure 7.



Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

¹ Low birthweight: < 2,500 grams or 5.5 pounds.

- Overall, low birthweight among teen births is almost 40% higher than it is for adult women (8.6% vs. 6.2%). This ratio varies by race/Hispanic ethnicity. Black teens had the unusual outcome of having a lower percentage of low birthweight births than their adult counterparts (10% vs. 12%). While low birthweight among white non-Hispanic teens was only 28.6% higher than for adult white non-Hispanic women, Asian teens had almost 3 times the low birthweight percentage of adult Asian women.

Table 13.
Low Birthweight¹ Births by Mother's Age and Race/Hispanic Ethnicity
Massachusetts: 1995

Mother's Age	Total		White*		Black*		Hispanic		Asian*		Other		Unknown	
	LBW N	% ²	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²	N	% ²
All Ages	5,174	6.4	3,579	5.7	684	11.7	597	7.4	232	6.8	66	6.8	16	14.5
20 +	4,647	6.2	3,348	5.6	598	12.0	425	6.7	203	6.2	58	6.9	16	14.8
< 20	527	8.6	231	7.2	86	10.0	172	10.0	30	18.4	8	6.0	0	0.0
18-19	294	7.9	147	6.8	41	8.9	92	10.2	10	11.4	4	**	0	0.0
<18	233	9.7	84	8.1	45	11.1	80	9.7	20	26.7	4	**	0	0.0
15-17	218	9.6	80	8.0	42	11.2	75	9.6	18	26.1	3	6.3	0	0.0
12-14	15	12.8	4	**	3	**	5	11.1	2	**	1	**	0	0.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Low birthweight: < 2,500 grams or 5.5 pounds.

² Percentages are based on the number of total births in each category.

- Low birthweight increased with younger maternal age, with the highest low birthweight percentage occurring to the infants of women ages 12-14 (12.8%), over twice that of adults (ages 20 and older).
- Low birthweight also varied by race/Hispanic ethnicity, with black non-Hispanic infants, at 11.7%, over twice as high as white non-Hispanic infants (5.7%). This variation is also found among teens, but the greatest contrast there is between Asian teens, with 18.4% low birthweight infants, and white non-Hispanic teens, with 7.2% low birthweight infants.

Table 14.
Low Birthweight¹ Among Teen Births
by Level of Prenatal Care and Mother's Race/Hispanic Ethnicity
Massachusetts: 1995

Mother's Race/ Ethnicity	Level of Prenatal Care ²								
	Adequate			Intermediate			Late/None		
	Births	Low Birthweight		Births	Low Birthweight		Births	Low Birthweight	
	N ³	N	%	N ³	N	%	N ³	N	%
< 20 Years	4,035	319	7.9	1,634	160	9.8	396	43	10.9
White*	2,210	140	6.3	796	65	8.2	187	22	11.8
Black*	554	50	9.0	247	29	11.7	60	6	10.0
Hispanic	1,087	109	10.0	506	52	10.3	121	11	9.1
Asian*	93	16	17.2	55	12	21.8	15	2	**
Other*	89	4	**	30	2	**	13	2	**
Unknown	2	0	0.0	0	0	0.0	0	0	0.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

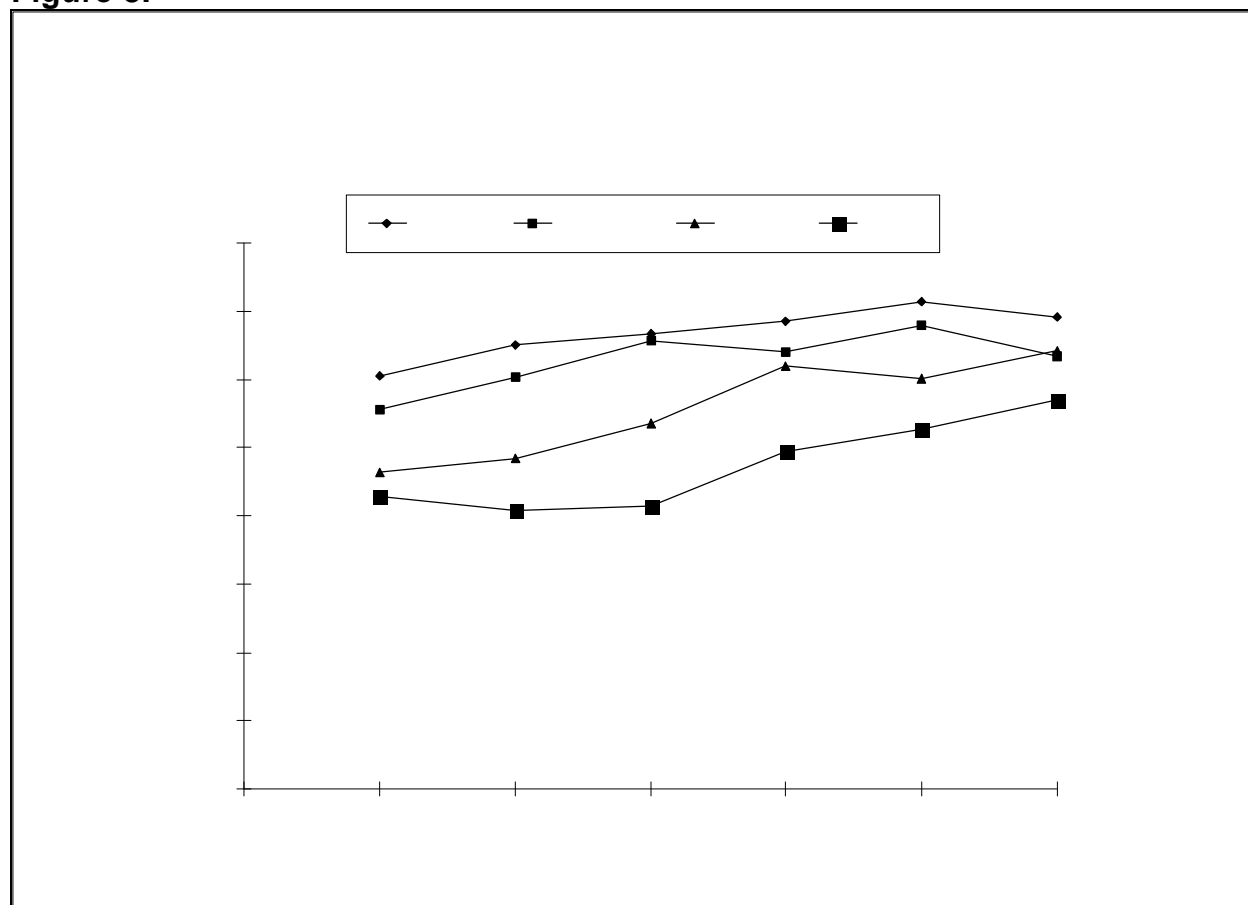
¹ Low birthweight: < 2,500 grams or 5.5 pounds.

² Adequacy of Prenatal Care is determined from an index which combines trimester of prenatal care registration with the number of prenatal care visits. The index is adjusted for gestational age. Adequate care requires first trimester registration and at least 9 prenatal visits. Intermediate care requires second trimester registration and at least five prenatal visits. See Glossary for further explanation.

³ Births with unknown birthweight and adequacy of prenatal care were excluded.

- Among births to teens (< 20 years of age), prenatal care is inversely associated with percent low birthweight. Those teens with adequate prenatal care had 7.9% low birthweight births, compared with 10.9% among those with late or no prenatal care. This relationship is less consistent when examined by race/Hispanic ethnicity. Among black non-Hispanic women, 9% of those with adequate level of prenatal care had low birthweight births, while 10% of births with late or no prenatal care were low birthweight. Among Hispanic teen births; 10% of those with adequate prenatal care had low birthweight births, while 9.1% of those with late or no prenatal care had low birthweight births.
- There is variation in the incidence of low birthweight among race/Hispanic ethnic groups, independent of the level of prenatal care. Asian teen women with adequate prenatal care had 2.7 times as many low birthweight births as white non-Hispanic teens with adequate prenatal care, a ratio which also held for the category of intermediate level of prenatal care.

Figure 8.



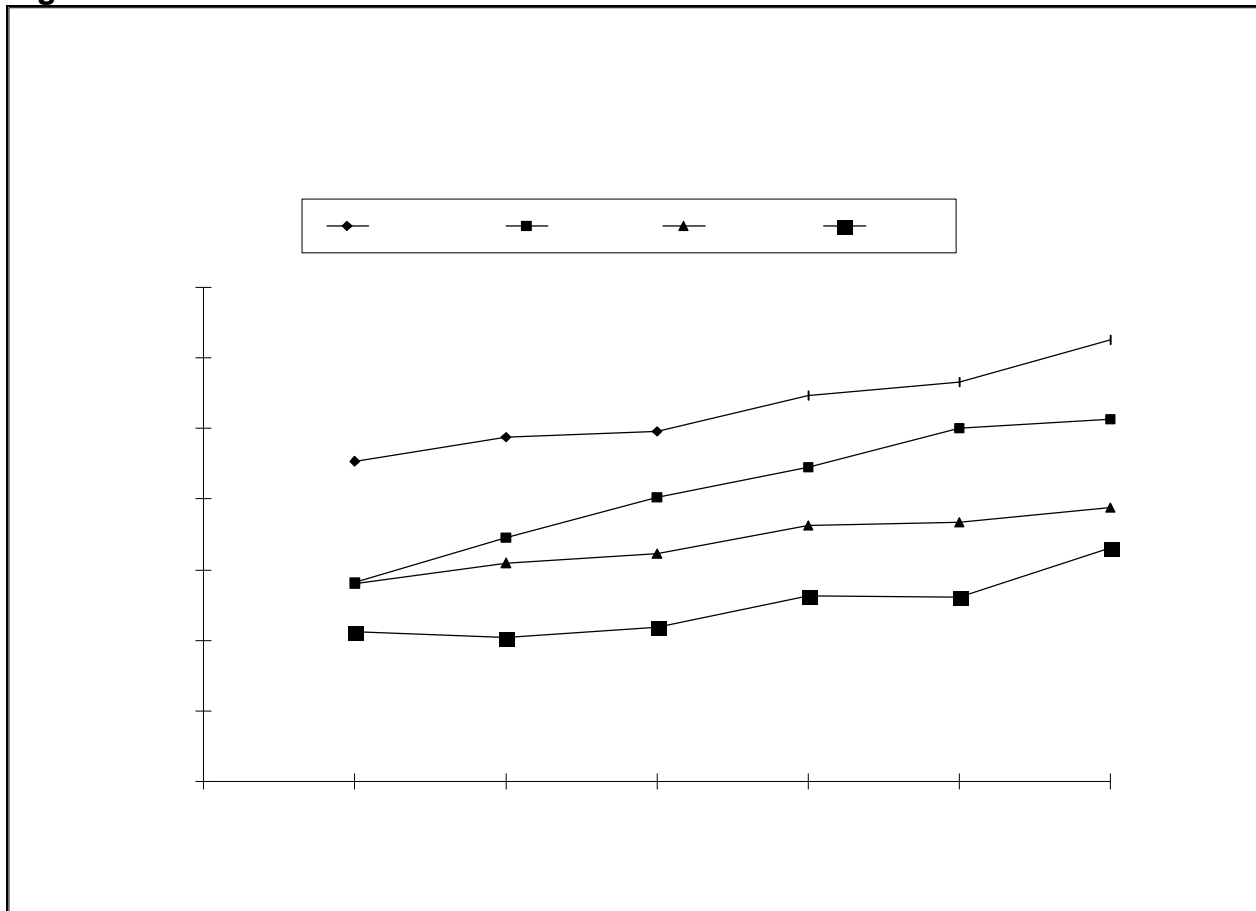
Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

¹ Adequacy of Prenatal Care is determined from an index that combines trimester of prenatal care registration with the number of prenatal care visits and adjusts for gestational age. Adequate care requires first trimester registration and at least 9 prenatal visits. See Glossary for further explanation.

- While Asian teen mothers continue to receive adequate prenatal care at lower percentages than all of the other race/Hispanic ethnicity groups, their percentages have increased steadily since 1992. The percentage increased from 41.5% in 1992 to 57.1% in 1995.
- Among the other race/Hispanic ethnicity groups, the percentage of teen mothers that received adequate prenatal care increased between 1994 and 1995 for black non-Hispanic mothers (60.1% to 64.3%) but declined among Hispanic and white non-Hispanic mothers (from 68.0% and 71.3% to 63.4% and 69.2%, respectively).

Figure 9.



Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

¹ Mother was breastfeeding or intending to breastfeed at time the birth certificate was completed.

- The percentage of teen mothers reporting breastfeeding or an intention to breastfeed increased between 1994 and 1995 for all race/Hispanic ethnicity groups, with the largest increase among Asians, from 26.1% to 33.1%.
- Asian teen mothers consistently reported the lowest percentages of breastfeeding or intention to breastfeed, while Hispanic teen mothers reported the highest percentages.

Table 15.
Percentage of Low Birthweight¹ Births to Women Under Age 20
Massachusetts and United States: 1995

Mother's Age	U. S. %	MA %
20+ Years	7.0	6.2
< 20 Years	9.4	8.6
15-19 Years	9.3	8.5
< 15 Years	13.5	12.8

Source: Massachusetts data from Registry of Vital Records and Statistics, MDPH, 1995. U.S. data from the National Center for Health Statistics, 1995.

¹ Low birthweight: < 2,500 grams or 5.5 pounds.

- The percentage of low birthweight births to teens (< 20 years of age) was lower in Massachusetts than in the nation (8.6% vs. 9.4%). While the national low birthweight percentage remained unchanged from 1994 to 1995, the Massachusetts percentage declined from 9.1% to 8.6% (1994 data not shown).
- Broken out by age, the percentage of low birthweight births among young teen mothers (less than 15 years of age) was lower for Massachusetts than for the U.S. as a whole (12.8% vs. 13.5%, respectively). The percentage of low birthweight births among teen mothers ages 15-19 (8.5%) was also lower than the corresponding national figure of 9.3%.

Table 16.
Prenatal and Birth Characteristics By Mother's Age and Race/Hispanic Ethnicity
Massachusetts: 1995

Mother's Race/Ethnicity	Birthweight ¹				Prenatal Care				C-Section		Breastfeeding ³	
	Very Low		Low		Adequate Care ²		First Trimester					
	N	% ⁴	N	% ⁴	N	% ⁴	N	% ⁴	N	% ⁴	N	% ⁴
All Ages	965	1.2	5,175	6.4	68,197	84.2	72,567	89.3	16,758	20.6	53,014	66.4
20 + Years	879	1.2	4,648	6.2	64,162	85.6	68,146	90.6	16,013	21.3	50,149	67.9
< 20 Years	86	1.4	527	8.6	4,035	66.5	4,421	72.7	745	12.3	2,865	47.5
White*	29	0.9	231	7.2	2,210	69.2	2,374	74.3	403	12.6	1,221	38.8
Black*	16	1.9	86	10	554	64.3	615	71.3	117	13.6	442	51.3
Hispanic	37	2.1	172	10.0	1,087	63.4	1,231	71.6	194	11.3	1,077	62.5
Asian*	3	**	30	18.4	93	57.1	100	61.3	16	9.8	53	33.1
Other*	1	**	8	6.0	89	67.4	99	74.4	15	11.3	72	54.5
Unknown	0	0.0	0	0.0	2	**	2	**	0	0.0	0	0.0

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Very low birthweight: < 1,500 grams or 3.3 pounds. Low birthweight: < 2,500 grams or 5.5 pounds.

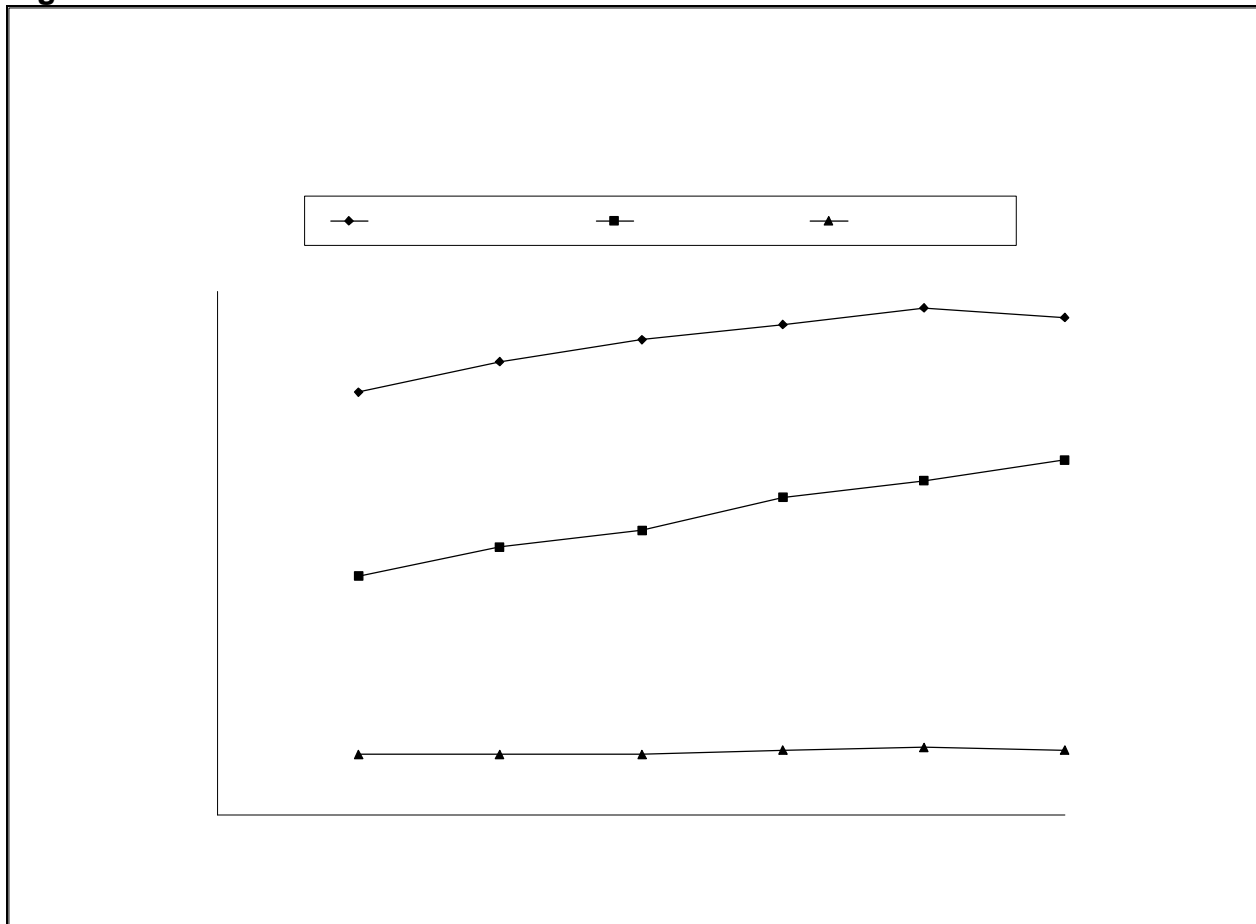
² Adequacy of Prenatal Care is determined from an index that combines trimester of prenatal care registration with the number of prenatal care visits and adjusts for gestational age. Adequate care requires first trimester registration and at least 9 prenatal visits. See Glossary for further explanation.

³ Mother was breastfeeding or intending to breastfeed at time the birth certificate was completed.

⁴ Includes only cases where birthweight, prenatal care, cesarean section or breastfeeding information is known.

- Among teens (< 20 years of age), Hispanics had the highest percentage of very low birthweight births (2.1%), while white non-Hispanics had the lowest percentage (0.9%).
- More adult women received adequate prenatal care compared to teen women (85.6% vs. 66.5%). Among teen racial/Hispanic ethnic groups, Asian women had the lowest percentage of adequate prenatal care (57.1%); the next lowest group was Hispanics, with 63.4%.
- Nearly 73% of teen mothers registered for prenatal care in the first trimester of pregnancy, the same percentage as in 1994 (data not shown).
- The overall percentage of births delivered by cesarean section was virtually the same as in 1994 (20.6% in 1995, 20.7% in 1994). The percentage of teens with cesarean deliveries remained unchanged from 1994, at 12.3% (1994 data not shown).
- While about two-thirds of adult mothers were breastfeeding or intending to breastfeed their infants in 1995, under half (47.5%) of teen mothers were breastfeeding or intending to breastfeed.

Figure 10.



Source: Registry of Vital Records and Statistics, MDPH, 1995.

- The percentage of adequate prenatal care among teen births overall showed a slight decline from the previous year (67.8% in 1994 to 66.5% in 1995).
- Each year, teen mothers are reporting higher percentages of breastfeeding or intention to breastfeed.
- The percentage of low birthweight among teen births continues to show little change over time.

Table 17.
Births by Gestational Age, Mother's Age, and Mother's Race/Hispanic Ethnicity
Massachusetts: 1995

Mother's Age and Gestational Age ¹ (weeks completed)	Total		White*		Black*		Hispanic		Asian*		Other*		Unknown	
	N	% ²	N	%	N	%	N	%	N	%	N	%	N	%
20 Years and Over														
< 37 weeks	5,857	7.8	4,296	7.2	695	13.9	534	8.4	250	7.6	64	7.6	18	9.7
37-41 weeks	65,725	87.1	52,508	87.8	4,053	81.2	5,452	85.9	2,895	88.5	731	87.2	86	46.5
42 + ³ weeks	3,529	4.7	2,813	4.7	222	4.4	331	5.2	122	3.7	39	4.7	2	**
Unknown	344	0.5	203	0.3	19	0.4	33	0.5	6	0.2	4	**	79	42.7
Less than 20 Years														
< 37 weeks	581	9.5	258	8.0	100	11.6	192	11.1	23	14.1	8	6.0	0	0.0
37-41 weeks	5,112	83.7	2,722	84.8	716	82.8	1,425	82.5	132	81.0	116	86.6	1	**
42 + ³ weeks	377	6.2	217	6.8	43	5.0	100	5.8	8	4.9	9	6.7	0	0.0
Unknown	37	0.6	12	0.4	6	0.7	10	0.6	0	0.0	1	**	8	88.9

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Clinical estimate of the number of weeks of pregnancy completed as estimated by the attendant at birth or the postnatal physician.

Normal gestational age is defined as delivery between the completion of the 37th and the 41st week of pregnancy.

² Percentages are based on column totals.

³ The majority (334 out of 417) of this group completed no more than 42 weeks gestation.

- The incidence of prematurity was about 22% greater in teen births than in births to adult mothers (9.5% and 7.8%, respectively).
- Among adult women, prematurity was highest among births to black non-Hispanic mothers (13.9%) and lowest among births to white non-Hispanic mothers (7.2%). Among teen mothers, prematurity was highest among Asians (14.1%), and lowest among white non-Hispanics (8.0%).

Table 18.
Trends in Infant Mortality Rates¹ by Mother's Age and Race/Hispanic Ethnicity
Massachusetts: 1989-1994²

Mother's Age	White*		Black*		Hispanic		Asian*		Other/Unk		Total	
	N ³	Rate	N ³	Rate	N ³	Rate	N ³	Rate	N ³	Rate	N ³	Rate
1989												
<20	60	13.0	18	15.8	14	8.8	1	**	2	**	95	12.3
20+	426	6.3	112	20.1	56	9.1	13	4.3	17	17.9	624	7.5
1990												
<20	31	7.4	17	15.2	14	8.2	1	**	1	**	64	8.7
20+	396	5.8	83	13.7	54	8.1	20	6.3	12	13.4	565	6.6
1991												
<20	38	9.9	14	13.2	20	11.3	1	**	2	**	75	10.7
20+	342	5.3	77	13.6	48	7.2	17	5.5	8	8.6	492	6.1
1992												
<20	32	9.0	20	18.9	19	11.0	0	0.0	2	**	73	11.0
20+	343	5.4	89	15.9	41	6.1	18	5.8	16	16.0	507	6.3
1993												
<20	25	7.2	14	14.0	23	12.7	2	**	0	0.0	64	9.7
20+	318	5.1	68	12.6	47	7.3	10	3.2	11	11.1	454	5.8
1994												
<20	33	10.0	8	8.0	20	10.3	1	**	2	**	64	9.7
20+	293	4.8	73	13.9	37	5.7	14	4.4	15	15.2	432	5.6

Source: Registry of Vital Records and Statistics, MDPH: 1989-1994.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

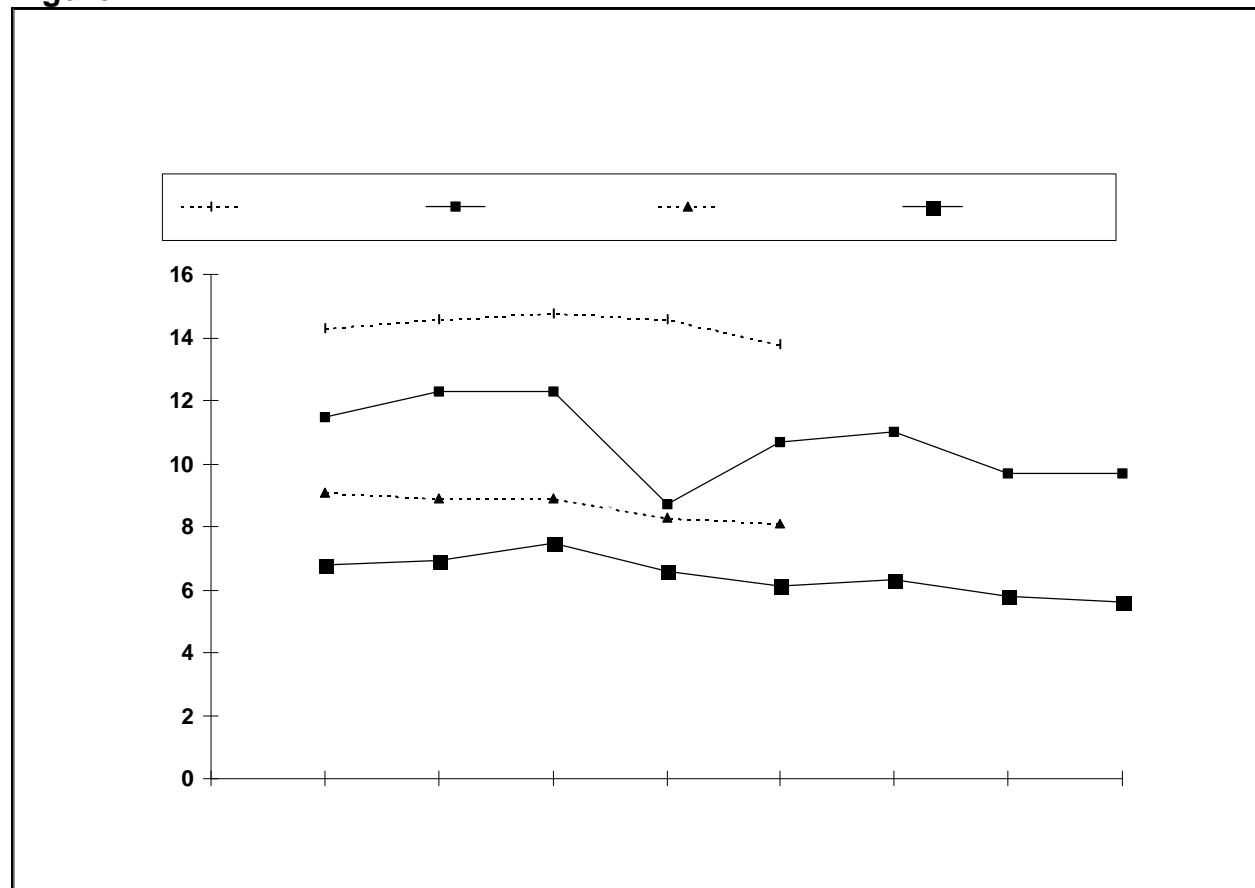
¹ Infant mortality rate: number of infant deaths per 1,000 live births (see Glossary for further explanation).

² 1994 is the last year data was available for this analysis. See Technical Notes for further explanation.

³ N refers to the number of deaths occurring in that year.

- Between 1989 and 1994, infant mortality declined 25.3% among the infants of adult women and 21.1% among the infants of teen mothers.
- Within race/Hispanic ethnicity groups, infants to teen mothers had consistently higher infant mortality rates than infants to adult mothers. The exceptions were black non-Hispanics, for whom infant mortality among births to adult mothers exceeded that among teen mothers for 3 of the 6 years shown, and Hispanics, for whom the same relationship was found in 1989.

Figure 11.



	1987	1988	1989	1990	1991	1992	1993	1994
U.S. <20 Years	14.3	14.6	14.8	14.6	13.8	N/A	N/A	N/A
MA <20 Years	11.5	12.3	12.3	8.7	10.7	11.0	9.7	9.7
U.S. 20+ Years	9.1	8.9	8.9	8.3	8.1	N/A	N/A	N/A
MA 20+ Years	6.8	6.9	7.5	6.6	6.1	6.3	5.8	5.6

Source: Registry of Vital Records and Statistics, MDPH, 1987-1994; National Center for Health Statistics, 1987-1991. U.S. data not available for subsequent years.

¹ Infant mortality rate: number of infant deaths per 1,000 live births (see Glossary for further explanation).

- From 1987 to 1991, the teen infant mortality rate (infant deaths per 1,000 live births) declined 3.5% nationally (from 14.3 to 13.8), and 7% among Massachusetts teens.
- In contrast, infant mortality among adult mothers declined 11% from 1987 to 1991 nationally, while the IMR among Massachusetts adult mothers declined 10.3%.
- From 1993 to 1994, the infant mortality rate among Massachusetts teen mothers was unchanged at 9.7 deaths per 1,000 live births, while the IMR among adult women declined very slightly, from 5.8 to 5.6.

Table 19.
Trends in Neonatal and Post-Neonatal Mortality Rates¹
by Mother's Age
Massachusetts: 1989-1994²

Mother's Age	Neonatal (<28 days)		Post-neonatal (28-364 days)		Total Infant Mortality Rate	
	N³	Rate	N³	Rate	N³	Rate
1989						
20+	435	5.2	189	2.3	624	7.5
<20	61	7.9	34	4.4	95	12.3
1990						
20+	400	4.7	165	1.9	656	6.6
<20	45	6.1	19	2.6	64	8.7
1991						
20+	350	4.3	142	1.8	492	6.1
<20	51	7.3	24	3.4	75	10.7
1992						
20+	372	4.6	130	1.6	502	6.2
<20	52	7.8	21	3.2	73	11.0
1993						
20+	331	4.2	123	1.6	454	5.8
<20	44	6.7	20	3.0	64	9.7
1994						
20+	309	4.0	122	1.6	431	5.6
<20	47	7.2	17	2.6	64	9.7

Source: Registry of Vital Records and Statistics, MDPH: 1989-1994.

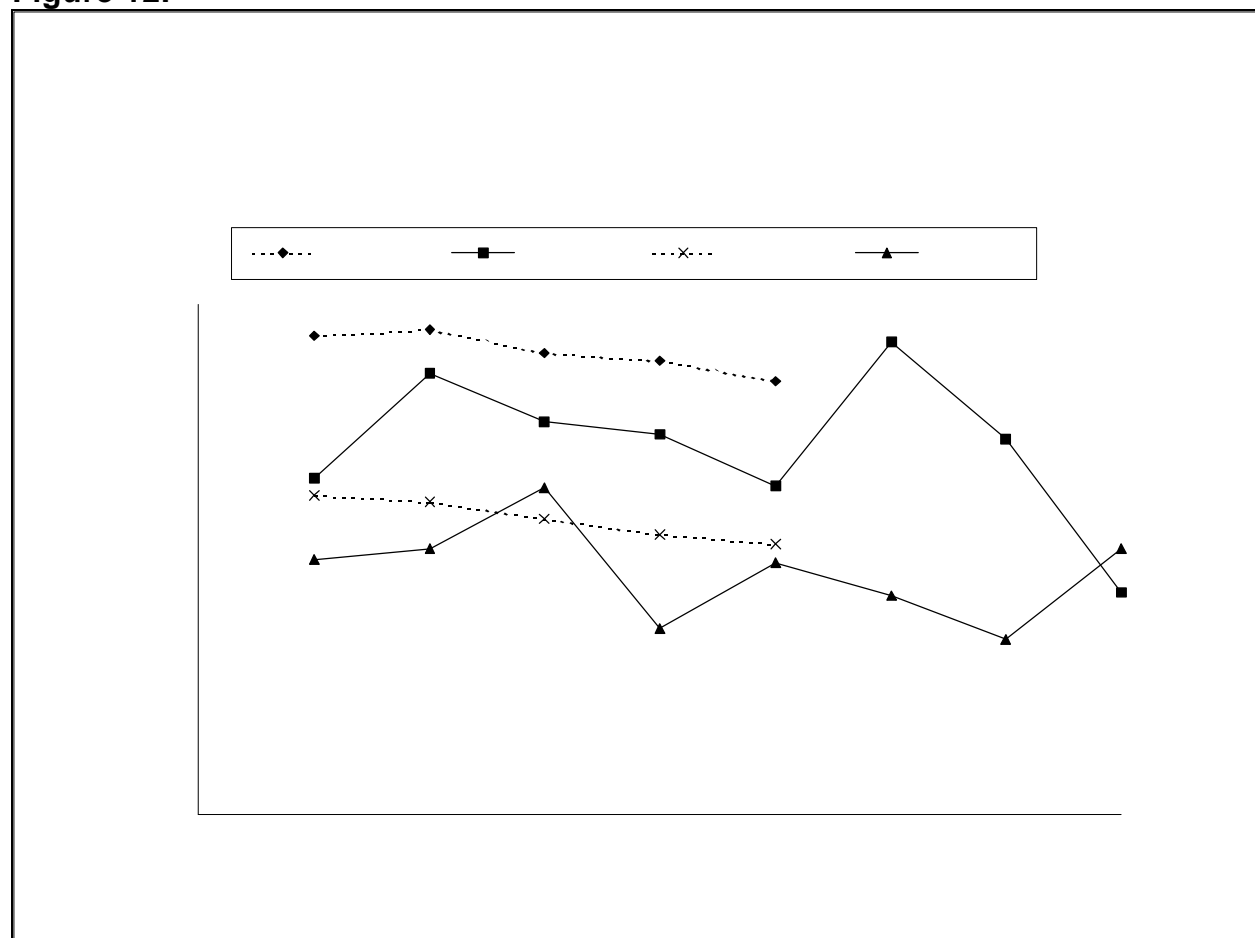
¹ Infant mortality rate: number of infant deaths per 1,000 live births (see Glossary for further explanation).

² 1994 is the latest year data was available for this analysis. See Technical Notes for further explanation.

³ N refers to the number of deaths occurring in that year.

- The ratio of infant mortality rates between births to teen mothers and births to adult mothers has widened over time. In 1989, the teen IMR was 64% higher than the adult IMR; in 1994, the teen IMR was 73% higher than the adult IMR.
- Regardless of mother's age, the IMR was consistently higher during the neonatal period than in the post-neonatal period.
- While neonatal mortality declined over time among births to both teen and adult mothers, the decline was larger for adults (23%) than for teens (9%).
- Conversely, the decline in postneonatal mortality over time was greater among births to teens (41%) than among births to adults (30%).

Figure 12.



	1987	1988						
	18.8	19.0						
	13.2	17.3						
	12.5	12.3						
	10.0	10.4						

Source: Massachusetts data from Registry of Vital Records and Statistics, MDPH: 1987-1994. U.S. data from the National Center for Health Statistics, 1987-1991.

¹ Infant mortality rate: number of infant deaths per 1,000 live births (see Glossary for further explanation).

² The white and black race categories include Hispanics.

- For the 5 year period 1987-1991, infant mortality among teen mothers at the national level exceeded that of Massachusetts teen mothers for both blacks and whites (with an exception in 1989 when infant mortality among whites in Massachusetts exceeded that of the U.S.).
- Infant mortality among Massachusetts black teens peaked in 1992 at 18.5 deaths per 1000 live births, declining to 8.7 by 1994.
- Unlike the previous 7 years, in 1994, the Massachusetts infant mortality rate among white teen mothers exceeded that of black teens (10.0 and 8.7, respectively).

Table 20.
Infant Mortality Rates¹ by Low Birthweight² and Mother's Age
Massachusetts: 1994³

Mother's Age	<1500g		1500-2499g		<2500g		2500+g	
	N ⁴	IMR	N ⁴	IMR	N ⁴	IMR	N ⁴	IMR
20 Years and Over	231	268.0	54	13.9	285	60.2	147	2.0
< 20 Years	33	287.0	6	12.4	39	65.0	25	4.2

Source: Registry of Vital Records and Statistics, MDPH: 1994.

¹ Infant mortality rate: number of infant deaths per 1,000 live births (see Glossary for further explanation).

² Low birthweight: < 2,500 grams or 5.5 pounds.

³ 1994 is the latest year data was available for this analysis. See Technical Notes for further explanation.

⁴ N refers to the number of deaths occurring in that year and age category.

- The risk of infant mortality increased as birthweight declined, and this effect was independent of maternal age. The infant mortality rate among very low birthweight infants (<1500 grams) was 23 times greater than the IMR among moderately low birthweight infants (1500-2499 grams) of teen mothers. Similarly, the IMR among very low birthweight infants born to adult women (20 years and older) was 19 times greater than the IMR for moderately low birthweight infants among adults.
- Teen infant mortality rates exceeded those for adults in each birthweight category except for moderately low birthweight, where the adult IMR was slightly higher (13.9 vs. 12.4). However, the degree of difference is markedly less than the differences across birthweight categories.
- The infant mortality rate among normal birthweight infants was more than twice as high among teen mothers than among adult mothers (4.2 vs. 2.0).

Table 21.
Maternal Smoking^{1,2} by Mother's Age and Race/Hispanic Ethnicity
Massachusetts: 1995

Mother's Race/Ethnicity	< 20 Years			20+ Years		
	Births N³	Smokers N %		Births N³	Smokers N %	
Total	6,105	1,313	21.5	75,259	9,689	12.9
White*	3,208	1,026	32.0	59,721	8,420	14.1
Black*	865	101	11.7	4,978	599	12.0
Hispanic	1,727	151	8.7	6,344	505	8.0
Asian*	163	0	0.0	3,272	43	1.3
Other/Unknown*	139	35	25.2	944	122	12.9

Source: Registry of Vital Records and Statistics, MDPH: 1995.

* Non-Hispanic

¹ Any amount of smoking cigarettes by mother during pregnancy.

² In 1995, two hospitals reported maternal smoking rates of less than 5%: Brigham and Women's (3.0%) and Newton-Wellesley (4.2%). Maternal smoking is self-reported by mothers, usually following the birth of their child, and as such these data should be interpreted cautiously.

³ Cases with unknown smoking status were excluded.

- More teen mothers smoked during pregnancy than adult mothers (21.5% vs. 12.9%).
- Among teen mothers, white non-Hispanics had the highest prevalence of smoking, 32.0%, almost 3 times that of the next highest race/Hispanic ethnicity, black non-Hispanics, at 11.7%.
- White non-Hispanics also had the highest smoking prevalence among adult women, but the racial/ethnic variation in smoking prevalence is much smaller among adult mothers than among teen mothers.
- White non-Hispanic teen mothers smoked 2.3 times as often as white non-Hispanic adult mothers. Smoking levels of teens and adults in other racial/ethnic groups were almost identical to one another.

Table 22.
Low Birthweight by Mother's Age, Smoking¹ Status
and Race/Hispanic Ethnicity
Massachusetts: 1995

Mother's Age	Smokers			Non-Smokers		
	Births N ³	LBW N	% ⁴	Births N ³	LBW N	% ⁴
< 20 Years	1,313	125	9.5	4,789	402	8.4
White*	1,026	80	7.8	2,182	151	6.9
Black*	101	16	15.8	764	70	9.2
Hispanic	151	25	16.7	1,576	147	9.3
Asian*	0	0	0.0	163	30	18.4
Other/Unknown*	35	4	**	104	4	**
20 Years and Over	9,689	960	9.9	65,570	3,662	5.6
White*	8,420	774	9.2	51,301	2,561	5.0
Black*	599	104	17.4	4,379	487	11.1
Hispanic	505	65	12.9	5,839	359	6.2
Asian*	43	1	**	3,229	202	6.3
Other/Unknown*	122	16	13.1	822	53	6.5

Source: Registry of Vital Records and Statistics, MDPH: 1995.

* Non-Hispanic

** Calculations based on fewer than five events are excluded.

¹ Any amount of smoking cigarettes by mother during pregnancy.

² In 1995, two hospitals reported maternal smoking rates of less than 5%: Brigham and Women's (3.0%) and Newton-Wellesley (4.2%). Maternal smoking is self-reported by mothers, usually following the birth of their child, and as such these data should be interpreted cautiously.

³ Cases with unknown smoking status were excluded.

⁴ Percentage of low birthweight births to smoking or non-smoking mothers.

- Low birthweight occurred more frequently among smokers than nonsmokers, for both teen and adult mothers and across race/Hispanic ethnicity groups (except among Asians where there were too few smokers to make a comparison).
- The total percentage of low birthweight births is very similar among smoking mothers regardless of maternal age (9.5% among smoking teens, 9.9% among smoking adults). When broken down by race/Hispanic ethnicity, however, percentages of low birthweight births to adult smokers were greater among white and black non-Hispanic mothers compared to teen smokers of the same race/Hispanic ethnicity, but smaller among adult Hispanic mothers compared to Hispanic teen smokers.
- Among teen smokers, the percentages of low birthweight births to both Hispanic (16.7%) and black non-Hispanic (15.8%) teens were at least 2 times greater than to white teens (7.8%).

- Among non-smokers, 8.4% of teens had low birthweight infants while 5.6% of adults had low birthweight infants.

III.

*Birth Characteristics
for Selected Communities*

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FIGURE 13: Map of 25 MA
Communities with highest number of
teen births

Table 23.
Trends in Birth Rates Among Women Ages 15-19
for Selected Communities¹ Ranked by 1995 Teen Birth Rate²
Massachusetts: 1995, 1990, 1985

1995 Rank	Demographic Area	1995		1990		1985	
		Number Births 15-19	Teen Birth Rate	Number Births 15-19	Teen Birth Rate	Number Births 15-19	Teen Birth Rate
	Massachusetts	5,990	29.2	7,258	35.1	6,857	28.6
1	Holyoke	170	117.8	203	140.3	182	104.3
2	Lawrence	286	110.6	338	122.8	269	100.6
3	Chelsea	74	86.2	105	114.8	67	67.3
4	Springfield	448	77.2	523	87.9	398	59.8
5	Lowell	298	75.5	309	81.3	254	61.0
6	Southbridge	43	75.0	48	82.5	43	66.8
7	Lynn	175	72.3	194	79.4	170	59.2
8	New Bedford	203	59.8	263	76.3	218	57.6
9	Brockton	183	56.0	216	67.8	240	62.8
10	Worcester	349	54.1	399	58.8	312	42.1
11	Fall River	169	53.3	246	76.9	238	67.9
12	Taunton	85	53.1	95	61.0	76	43.1
13	Fitchburg	93	52.8	146	82.1	100	46.7
14	Haverhill	88	49.9	94	60.4	80	43.3
15	Leominster	60	48.7	42	37.8	62	45.0
16	Pittsfield	68	44.7	74	48.3	69	34.8
17	Revere	44	41.9	45	42.3	24	16.7
18	Boston	880	41.1	1,137	52.7	1,158	46.7
19	Attleboro	47	38.1	53	45.9	57	42.5
20	Methuen	49	36.7	53	41.7	44	30.7
21	Salem	45	36.3	45	35.4	39	25.2
22	Chicopee	59	31.7	84	44.9	59	26.7
23	Somerville	57	28.8	64	29.2	83	29.2
24	Framingham	51	23.0	44	19.6	48	17.4
25	Quincy	44	19.5	51	22.0	57	19.2

Sources: Registry of Vital Records and Statistics, MDPH, 1985, 1990, 1995. The 1990 population data are based on the 1990 Census Massachusetts Age, Race and Sex File (MARS File); the 1995 data are interpolations based on the 1990 Census and the 1995 estimates from the Massachusetts Institute for Social and Economic Research (MISER); and the 1985 data are interpolations based on the 1980 and 1990 censuses and estimates from MISER.

¹ 25 communities with the greatest number of 1995 teen births. ² Rates are per 1,000 females ages 15-19 in each city/town

Table 24.
Births by Mother's Age and Race/Hispanic Ethnicity
for Selected Communities¹
Massachusetts: 1995

Community	Births	White*	Black*	Hispanic	Asian*	Other/ Unknown	Total
Massachusetts	All Ages	63,029	5,854	8,077	3,436	1,166	81,562²
	< 18	1,040	404	826	75	52	2,397
	< 20	3,209	865	1,727	163	143	6,107
	20 +	59,819	4,989	6,350	3,273	1,022	75,453
Attleboro	All Ages	615	4	25	26	6	676
	< 18	11	0	**	**	0	16
	< 20	36	**	6	5	**	48
	20 +	579	**	19	21	¥	628
Boston	All Ages	2,768	2,861	1,648	586	171	8,034
	< 18	44	213	122	13	4	396
	< 20	137	466	253	27	18	901
	20 +	2,631	2,395	1,395	559	152	7,132
Brockton	All Ages	791	305	135	36	148	1,415
	< 18	22	20	20	**	**	68
	< 20	86	39	42	**	¥	186
	20 +	705	266	93	¥	¥	1,229
Chelsea	All Ages	133	46	343	45	13	580
	< 18	6	0	19	**	**	26
	< 20	13	**	54	**	**	75
	20 +	120	¥	289	¥	10	505
Chicopee	All Ages	551	14	56	6	1	628
	< 18	15	0	6	0	0	21
	< 20	42	**	14	0	**	59
	20 +	509	¥	42	6	**	569
Fall River	All Ages	1,086	23	27	35	8	1,179
	< 18	59	**	**	**	**	70
	< 20	155	6	6	**	**	172
	20 +	931	17	21	¥	¥	1,007

Table 24. (Continued)
Births by Mother's Age and Race/Hispanic Ethnicity
for Selected Communities
Massachusetts: 1995

Community	Births	White*	Black*	Hispanic	Asian*	Other/ Unknown	Total
Fitchburg	All Ages	354	23	130	23	3	533
	< 18	10	5	31	**	**	47
	< 20	38	8	46	**	**	95
	20 +	316	15	84	¥	**	438
Framingham	All Ages	666	40	195	37	18	956
	< 18	9	**	11	0	**	21
	< 20	27	**	21	**	**	52
	20 +	639	¥	174	¥	¥	904
Haverhill	All Ages	735	23	86	12	7	863
	< 18	24	**	10	0	**	39
	< 20	62	6	20	0	1	89
	20 +	673	17	66	12	6	774
Holyoke	All Ages	231	18	423	11	**	684
	< 18	8	0	70	0	0	78
	< 20	32	**	137	**	**	174
	20 +	199	¥	286	¥	0	510
Lawrence	All Ages	364	23	856	38	17	1,298
	< 18	19	0	113	**	**	135
	< 20	52	**	238	5	**	300
	20 +	312	¥	618	33	¥	998
Leominster	All Ages	477	17	84	27	7	612
	< 18	8	0	8	**	**	18
	< 20	30	**	25	**	1	61
	20 +	447	¥	59	¥	6	551
Lowell	All Ages	970	62	335	357	15	1,739
	< 18	45	**	55	23	**	129
	< 20	135	6	108	47	5	301
	20 +	835	56	227	310	10	1,438

Table 24. (Continued)
Births by Mother's Age and Race/Hispanic Ethnicity
for Selected Communities
Massachusetts: 1995

Community	Births	White*	Black*	Hispanic	Asian*	Other/ Unknown	Total
Lynn	All Ages	637	168	338	128	15	1,286
	< 18	18	11	35	13	1	78
	< 20	56	26	77	17	3	179
	20 +	581	142	261	111	12	1,107
Methuen	All Ages	456	5	89	22	5	577
	< 18	9	0	8	**	**	19
	< 20	27	**	19	**	2	50
	20 +	429	**	70	¥	3	527
New Bedford	All Ages	917	74	146	15	82	1,234
	< 18	41	8	22	**	¥	82
	< 20	129	17	40	**	¥	207
	20 +	788	57	106	¥	¥	1,027
Pittsfield	All Ages	530	22	12	11	13	588
	< 18	20	5	0	0	3	28
	< 20	56	7	**	0	**	69
	20 +	474	15	¥	11	¥	519
Quincy	All Ages	816	42	46	161	18	1,083
	< 18	8	0	**	0	**	10
	< 20	34	**	**	**	3	44
	20 +	782	¥	¥	¥	15	1,039
Revere	All Ages	434	33	84	55	11	617
	< 18	8	0	8	**	**	17
	< 20	20	6	18	**	**	47
	20 +	414	27	66	¥	¥	570
Salem	All Ages	437	18	83	8	**	550
	< 18	14	**	9	0	**	25
	< 20	24	**	17	0	**	46
	20 +	413	¥	66	8	**	504

Table 24. (Continued)
Births by Mother's Age and Race/Hispanic Ethnicity
for Selected Communities¹
Massachusetts: 1995

Community	Births	White*	Black*	Hispanic	Asian*	Other/ Unknown	Total
Somerville	All Ages	540	143	215	60	27	985
	< 18	8	7	9	0	0	24
	< 20	29	10	20	0	0	59
	20 +	511	133	195	60	27	926
Southbridge	All Ages	171	**	77	5	**	254
	< 18	13	0	9	0	0	22
	< 20	27	**	17	0	**	44
	20 +	144	**	60	5	**	210
Springfield	All Ages	971	554	736	46	24	2,331
	< 18	29	65	116	**	¥	217
	< 20	89	119	238	6	11	463
	20 +	882	435	498	40	13	1,868
Taunton	All Ages	710	27	38	3	14	792
	< 18	21	0	**	0	**	23
	< 20	76	**	5	**	**	85
	20 +	634	¥	33	**	13	707
Worcester	All Ages	1,481	193	519	149	32	2,374
	< 18	49	18	76	**	**	150
	< 20	138	36	160	11	10	355
	20 +	1,343	157	359	138	22	2,019

Source: Registry of Vital Records and Statistics, MDPH, 1995.

* Non-Hispanic

** Information in cells with values less than 5 (excluding the "Other/Unknown" cells) is suppressed when births are cross-classified by age group and race/ethnicity in order to preserve the confidentiality of these cases. In these cases, additional cells with values less than 5 which enable calculation of the number of cases are also suppressed.

¥ These cells have numbers that are 5 and greater, but the numbers were suppressed to prevent inferring the value of the suppressed cell which contains fewer than 5 cases.

¹ 25 communities with the greatest number of teen births.

² Includes births of unknown maternal age.

Table 25.
Birth Characteristics Among Teen Births for Selected Communities
Massachusetts: 1995

Community	Low Birthweight	Adequacy of Care ²			Multiparous ³	
	<2500 g	Adequate	Interm	Inadeq/None		
	Percent ⁴	Percent ⁴	Percent ⁴	Percent ^{4c}	Number	Percent ⁴
Massachusetts	8.6	66.5	27.0	4.8	1,096	18.0
Attleboro	8.3	62.5	25.0	12.5	11	22.9
Boston	7.6	70.4	23.5	6.2	165	18.4
Brockton	7.0	54.3	34.9	10.8	37	19.9
Chelsea	9.3	59.5	32.4	8.1	21	28.0
Chicopee	10.2	72.4	20.7	6.9	14	23.7
Fall River	9.4	61.2	33.5	5.3	26	15.4
Fitchburg	5.3	61.7	33.0	5.3	24	25.3
Framingham	3.8	92.3	7.7	0.0	8	15.4
Haverhill	6.7	66.3	27.0	6.7	11	12.4
Holyoke	11.5	64.0	31.4	4.7	51	29.3
Lawrence	9.3	45.8	41.8	12.5	75	25.0
Leominster	13.1	78.3	16.7	5.0	15	24.6
Lowell	8.6	70.1	23.9	6.0	71	23.6
Lynn	8.4	65.9	26.8	7.3	38	21.2
Methuen	6.0	66.0	26.0	8.0	9	18.0
New Bedford	7.2	55.6	36.6	7.8	47	22.8
Pittsfield	14.5	72.5	24.6	2.9	8	11.6
Quincy	9.1	70.5	27.3	2.3	9	20.5
Revere	8.5	66.0	34.0	0.0	11	23.4
Salem	13.0	78.3	17.4	4.3	3	6.5
Somerville	10.3	67.2	25.9	6.9	11	19.0
Southbridge	18.2	61.4	36.4	2.3	16	36.4
Springfield	11.4	57.5	35.4	7.1	128	27.6
Taunton	12.9	62.4	35.3	2.4	8	9.4
Worcester	10.8	80.7	14.5	4.8	71	20.2

Source: Registry of Vital Records and Statistics, MDPH, 1995.

** Percentages were not calculated for fewer than five observations.

¹ 25 communities with the greatest number of teen births.

² Adequacy of Prenatal Care is determined from an index which combines trimester of prenatal care registration with the number of prenatal care visits. See Glossary for definitions.

³ Mothers who have had at least one previous live birth.

⁴ Percentages are calculated only for cases where information is known.

Table 26.
Expected Educational Attainment and In-Hospital Paternity
Acknowledgment Among Teen Mothers
for Selected Communities²
Massachusetts: 1995

Community	Behind Grade Level ³		Paternity Acknowledgment
	Number	Percent	Percent
Massachusetts	1,609	26.3	54.2
Attleboro	18	37.5	83.3
Boston	205	22.8	30.9
Brockton	51	27.4	48.5
Chelsea	23	30.7	49.2
Chicopee	19	32.2	53.1
Fall River	55	32	73.6
Fitchburg	37	38.9	50.6
Framingham	7	13.5	71.1
Haverhill	20	22.5	54.4
Holyoke	65	37.4	64.6
Lawrence	92	30.7	45.8
Leominster	23	37.7	57.7
Lowell	85	28.2	54.6
Lynn	43	24	47.0
Methuen	17	34	57.8
New Bedford	56	27.1	64.9
Pittsfield	15	21.7	55.6
Quincy	9	20.5	55.6
Revere	14	29.8	54.8
Salem	7	15.2	51.2
Somerville	16	27.1	62.3
Southbridge	23	52.3	75.7
Springfield	170	36.7	44.1
Taunton	27	31.8	65.0
Worcester	113	31.8	47.7

Source: Registry of Vital Records and Statistics, MDPH, 1995.

¹ Paternity acknowledgment: voluntary self-acknowledgment by fathers or acknowledgment through legal action. This data reflects data collected in hospitals, at time of birth, only (see Glossary for further explanation).

² 25 communities with the greatest number of teen births.

³ Behind grade level is defined as one or more grades behind the maximum expected age for a grade at the time of delivery. Adjustments were made for foreign-born students. See Glossary for explanation.

IV.

Birth Characteristics for all 351 Communities and the 27 Community Health Network Areas

Table 27.
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Massachusetts	81,562	2,397	6,107	4,421	4,194
Abington	232	2	5	**	5
Acton	266	1	3	**	**
Acushnet	69	3	8	**	**
Adams	104	3	10	8	9
Agawam	331	6	11	8	6
Alford	2	0	0	0	0
Amesbury	223	1	8	**	6
Amherst	194	7	15	9	9
Andover	366	1	5	**	**
Arlington	576	0	3	**	**
Ashburnham	63	4	5	**	**
Ashby	25	0	1	**	**
Ashfield	22	0	0	0	0
Ashland	238	0	9	7	5
Athol	107	8	21	17	13
Attleboro	676	16	48	35	36
Auburn	188	4	8	6	**
Avon	61	0	1	**	**
Ayer	117	1	5	**	**
Barnstable	468	5	23	21	14
Barre	52	0	3	**	**
Becket	23	0	0	0	0
Bedford	265	1	2	**	**
Belchertown	150	2	9	8	7
Bellingham	203	5	11	10	**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Belmont	282	0	3	**	**
Berkley	83	0	3	**	**
Berlin	36	1	1	**	**
Bernardston	21	1	3	**	**
Beverly	514	8	21	15	12
Billerica	546	4	23	19	12
Blackstone	153	5	13	13	0
Blandford	12	0	0	0	0
Bolton	46	0	0	0	0
Boston	8,034	396	901	695	630
Bourne	273	2	13	11	5
Boxborough	63	0	0	0	0
Boxford	95	0	1	**	**
Boylston	49	0	0	0	0
Braintree	386	3	10	8	6
Brewster	68	0	3	**	**
Bridgewater	266	6	13	8	5
Brimfield	39	0	0	0	0
Brockton	1,415	68	186	122	141
Brookfield	42	1	3	0	**
Brookline	600	2	6	**	**
Buckland	19	0	0	0	0
Burlington	322	0	1	**	**
Cambridge	969	13	37	23	24
Canton	265	1	2	0	**
Carlisle	52	0	0	0	0
Carver	128	5	11	9	**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Charlemont	19	1	2	**	**
Charlton	141	3	9	6	5
Chatham	47	0	5	**	5
Chelmsford	451	3	7	5	**
Chelsea	580	26	75	48	56
Cheshire	44	1	2	**	**
Chester	18	3	4	**	**
Chesterfield	8	0	0	0	0
Chicopee	628	21	59	43	40
Chilmark	5	0	0	0	0
Clarksburg	15	0	1	**	**
Clinton	169	7	20	14	14
Cohasset	107	0	2	**	**
Colrain	22	0	2	**	**
Concord	181	0	1	**	**
Conway	20	0	1	**	**
Cummington	8	0	0	0	0
Dalton	88	2	8	5	**
Danvers	299	3	7	6	**
Dartmouth	230	2	14	11	8
Dedham	286	2	11	9	7
Deerfield	54	1	1	**	**
Dennis	112	3	6	6	5
Dighton	60	0	1	**	**
Douglas	88	2	7	**	**
Dover	57	0	0	0	0
Dracut	413	4	16	15	9

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Dudley	99	0	4	**	**
Dunstable	33	0	0	0	0
Duxbury	193	3	5	**	0
East Bridgewater	166	3	12	8	8
East Brookfield	19	0	1	**	**
East Longmeadow	141	1	2	**	0
Eastham	20	1	3	**	**
Easthampton	171	5	14	7	13
Easton	275	4	7	**	**
Edgartown	33	0	3	**	**
Egremont	3	0	0	0	0
Erving	9	**	**	**	**
Essex	65	0	1	**	**
Everett	537	15	37	28	28
Fairhaven	175	4	11	7	7
Fall River	1,179	70	172	108	123
Falmouth	287	5	13	10	5
Fitchburg	533	47	95	63	72
Florida	6	0	0	0	0
Foxborough	227	2	6	**	**
Framingham	956	21	52	48	39
Franklin	560	3	13	12	**
Freetown	75	1	2	**	0
Gardner	265	15	41	35	34
Gay Head	1	0	0	0	0
Georgetown	120	1	1	**	**
Gill	17	0	1	**	**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Gloucester	359	6	22	13	17
Goshen	14	0	0	0	0
Gosnold	1	0	0	0	0
Grafton	209	1	3	**	**
Granby	66	1	4	**	**
Granville	16	1	1	**	**
Great Barrington	57	2	5	5	**
Greenfield	202	7	22	20	17
Groton	152	0	2	0	0
Groveland	79	0	3	**	**
Hadley	35	1	2	0	**
Halifax	109	1	4	**	**
Hamilton	95	0	0	0	0
Hampden	45	1	4	**	0
Hancock	8	0	0	0	0
Hanover	145	0	2	**	**
Hanson	123	1	5	5	**
Hardwick	29	0	3	0	**
Harvard	84	0	1	**	**
Harwich	97	3	6	**	**
Hatfield	25	0	0	0	0
Haverhill	863	39	89	64	62
Hawley	2	0	0	0	0
Heath	7	0	0	0	0
Hingham	265	0	5	5	**
Hinsdale	24	2	4	**	**
Holbrook	107	2	8	**	**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Holden	183	0	2	**	0
Holland	33	0	0	0	0
Holliston	184	3	5	**	0
Holyoke	684	78	174	115	152
Hopedale	96	2	4	**	**
Hopkinton	195	2	2	**	0
Hubbardston	50	1	3	**	**
Hudson	241	7	10	8	6
Hull	167	4	9	7	**
Huntington	22	2	3	**	**
Ipswich	155	2	8	6	7
Kingston	192	2	4	**	**
Lakeville	106	0	4	**	0
Lancaster	49	2	3	**	0
Lanesborough	32	1	2	**	**
Lawrence	1,298	135	300	195	229
Lee	69	1	2	**	**
Leicester	111	3	6	5	**
Lenox	54	2	3	**	**
Leominster	612	18	61	48	32
Leverett	19	0	1	**	**
Lexington	297	0	0	0	0
Leyden	5	**	**	**	**
Lincoln	70	0	0	0	0
Littleton	112	0	2	**	**
Longmeadow	173	0	2	**	**
Lowell	1,739	129	301	218	245

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Ludlow	211	4	14	9	**
Lunenburg	109	1	4	**	**
Lynn	1,286	78	179	130	133
Lynnfield	121	0	0	0	0
Malden	784	8	29	23	21
Manchester	62	0	2	**	0
Mansfield	454	4	13	8	6
Marblehead	236	0	0	0	0
Marion	34	0	0	0	0
Marlborough	581	13	37	30	26
Marshfield	361	1	6	**	**
Mashpee	143	4	8	6	**
Mattapoissett	56	0	1	**	**
Maynard	177	1	5	**	**
Medfield	169	0	0	0	0
Medford	647	5	16	10	7
Medway	202	0	1	**	**
Melrose	376	1	7	6	**
Mendon	61	0	1	**	**
Merrimac	76	1	3	**	**
Methuen	577	19	50	41	27
Middleborough	253	7	20	14	15
Middlefield	2	0	0	0	0
Middleton	85	0	1	**	**
Milford	384	5	18	17	14
Millbury	159	4	14	9	8
Millis	140	1	2	**	**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Millville	41	2	5	**	**
Milton	275	2	4	**	**
Monroe	1	0	0	0	0
Monson	94	1	2	0	0
Montague	97	5	10	8	9
Monterey	7	0	0	0	0
Montgomery	8	0	0	0	0
Mount Washington	2	0	0	0	0
Nahant	38	0	0	0	0
Nantucket	102	1	3	**	**
Natick	472	2	5	**	**
Needham	399	1	1	**	**
New Ashford	4	0	0	0	0
New Bedford	1,234	82	207	131	160
New Braintree	11	0	0	0	0
New Marlborough	18	1	1	**	**
New Salem	8	0	0	0	0
Newbury	90	0	2	**	**
Newburyport	202	5	8	7	5
Newton	818	1	6	5	**
Norfolk	135	0	1	**	**
North Adams	180	14	34	28	27
North Andover	308	4	10	6	8
North Attleborough	405	5	15	10	10
North Brookfield	53	1	5	**	**
North Reading	199	0	1	**	**
Northampton	232	11	27	22	21

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Northborough	173	0	5	**	**
Northbridge	201	3	14	12	10
Northfield	32	2	2	**	**
Norton	287	1	8	7	**
Norwell	108	1	1	**	**
Norwood	392	2	11	7	7
Oak Bluffs	40	2	2	**	0
Oakham	17	0	0	0	0
Orange	76	4	12	9	8
Orleans	35	1	1	**	**
Otis	10	1	1	**	**
Oxford	142	1	10	9	**
Palmer	193	12	23	18	14
Paxton	31	0	0	0	0
Peabody	601	3	18	15	9
Pelham	9	0	0	0	0
Pembroke	236	1	6	**	**
Pepperell	130	0	5	**	**
Peru	7	0	0	0	0
Petersham	9	0	0	0	0
Phillipston	15	0	0	0	0
Pittsfield	588	28	69	55	44
Plainfield	5	0	0	0	0
Plainville	92	0	3	**	**
Plymouth	677	11	42	29	20
Plympton	34	0	1	**	**
Princeton	27	0	1	**	**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Provincetown	16	0	2	**	**
Quincy	1,083	10	44	33	28
Randolph	413	7	18	12	10
Raynham	132	2	6	**	**
Reading	341	1	2	**	**
Rehoboth	89	1	2	0	**
Revere	617	17	47	35	35
Richmond	12	0	1	**	**
Rochester	52	0	1	**	**
Rockland	269	3	13	11	7
Rockport	72	0	1	**	**
Rowe	6	**	**	**	**
Rowley	77	2	2	**	0
Royalston	13	0	2	**	**
Russell	21	0	3	**	**
Rutland	69	0	1	**	**
Salem	550	25	46	40	31
Salisbury	97	3	7	5	**
Sandisfield	6	**	**	**	**
Sandwich	234	3	7	6	5
Saugus	284	3	10	6	5
Savoy	7	0	0	0	0
Scituate	228	1	6	**	**
Seekonk	127	4	8		**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
				5	
Sharon	231	1	1	**	**
Sheffield	36	0	0	0	0
Shelburne	12	0	1	**	**
Sherborn	46	0	0	0	0
Shirley	66	2	3	**	**
Shrewsbury	436	1	11	11	**
Shutesbury	17	0	0	0	0
Somerset	142	8	17	11	8
Somerville	985	24	59	41	40
South Hadley	153	1	7	**	5
Southampton	53	0	3	**	**
Southborough	112	0	1	**	**
Southbridge	254	22	44	28	32
Southwick	105	2	5	**	**
Spencer	137	2	15	11	10
Springfield	2,331	217	463	301	368
Sterling	85	0	2	**	**
Stockbridge	11	0	2	**	**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Stoneham	262	2	5	**	**
Stoughton	320	2	11	7	**
Stow	78	0	2	**	**
Sturbridge	87	2	4	**	**
Sudbury	229	3	4	**	**
Sunderland	45	0	1	**	**
Sutton	115	1	3	**	**
Swampscott	162	0	0	0	0
Swansea	174	2	9	**	6
Taunton	792	23	85	56	56
Templeton	100	1	3	**	0
Tewksbury	455	4	6	**	5
Tisbury	41	1	2	**	**
Tolland	4	0	0	0	0
Topsfield	55	1	2	**	**
Townsend	116	2	7	5	**
Truro	11	0	0	0	0
Tyngsborough	173	3	7	6	**
Tyringham	3	0	**	**	**
Upton	113	0	1	**	**

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Uxbridge	160	2	7	5	**
Wakefield	320	0	4	**	**
Wales	24	0	2	**	**
Walpole	264	1	1	**	**
Waltham	779	16	42	35	29
Ware	93	6	16	14	8
Wareham	249	15	40	36	26
Warren	66	5	17	9	12
Warwick	11	0	0	0	0
Washington	6	0	0	0	0
Watertown	400	0	5	**	**
Wayland	166	0	1	**	**
Webster	216	15	31	28	22
Wellesley	362	0	2	**	**
Wellfleet	15	0	0	0	0
Wendell	6	0	0	0	0
Wenham	31	0	1	**	**
West Boylston	60	0	1	**	**
West Bridgewater	72	1	3	**	0
West Brookfield	46	4	6	**	**
West Newbury	44	0	0	0	0
West Springfield	349	17	33	17	24
West Stockbridge	17	0	0	0	0
West Tisbury	29	0	0	0	0
Westborough	214	0	2	**	**
Westfield	452	13	42	29	30

Table 27. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
351 Massachusetts Communities: 1995

Community	All Ages	Number of Births		Prenatal Care (<20 Years)	
	Number of Births	< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Westford	328	1	4	**	**
Westhampton	12	0	0	0	0
Westminster	72	1	3	**	**
Weston	122	1	1	**	**
Westport	113	1	5	5	**
Westwood	163	0	1	**	**
Weymouth	784	13	40	28	13
Whately	22	0	0	0	0
Whitman	178	1	8	5	**
Wilbraham	121	3	4	**	**
Williamsburg	33	0	1	**	**
Williamstown	52	1	3	**	**
Wilmington	344	1	11	7	**
Winchendon	115	2	10	9	**
Winchester	261	0	0	0	0
Windsor	3	0	0	0	0
Winthrop	211	0	4	**	**
Woburn	437	5	15	9	10
Worcester	2,374	150	355	294	276
Worthington	10	0	0	0	0
Wrentham	151	2	2	**	0
Yarmouth	217	6	20	17	14

Source: Registry of Vital Records and Statistics, MDPH, 1995.

** For communities where "Number of Births to All Ages" is less than 10, cells with values of 1-4 are suppressed. For all communities, "Prenatal Care (< 20 Years)" cells with values of 1-4 suppressed. For communities where the number of teen births ("<20 Years") equals one, prenatal care cells are suppressed. Cells have also been suppressed in those instances where the publication of cell values would lead to inadvertent identification of individuals.

Table 28.
Number of Births by Mother's Age and Prenatal Care Characteristics
27 Community Health Network Areas 1995

Community Health Network Areas (CHNA)	All Ages	Teens			
	Number of Births	Number of Births		Prenatal Care (< 20 Years)	
		< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
Massachusetts	81,562	2,397	6,107	4,421	4,194
1 Community Health Network of Berkshire County	1,498	60	150	120	97
2 Greater Franklin/North Quabbin CHN	915	32	85	71	59
3 Greater Northampton Area Partnership for Health	1,273	34	98	67	69
3.1 Greater Holyoke Area	2,015	121	296	200	232
4 Greater Springfield Community Health Network	3,944	261	553	359	420
5 Greater Southbridge	1,398	56	151	110	97
6 Greater Milford Community Partners for Health	2,377	30	98	83	41
7 Greater Framingham Area	5,240	58	155	128	94
8 Greater Worcester Area CHN	3,800	163	400	330	297
9 Fitchburg/Gardner Area	3,199	105	283	205	180
10 Greater Lowell Community Health Network	4,138	148	364	269	279
11 Greater Lawrence Area	2,634	159	366	245	266
12 Greater Haverhill Area	1,966	52	124	88	81
13 Beverly/Gloucester Area	1,408	17	58	39	39
14 North Shore Community Health Network	3,577	112	260	197	182
15 Greater Woburn/Concord/Littleton Area	2,670	8	35	21	17
16 Malden/Medford/Melrose Area	3,466	32	101	75	69
17 Somerville/Cambridge Area	3,212	37	107	70	71
18 Newton/Waltham West Suburban Health Network	2,986	21	64	54	41
19 Alliance for Community Health (Boston)	10,042	441	1,033	784	725
20 Blue Hills Community Health Alliance	4,704	45	153	109	76
22 Greater Brockton Community Health Network	3,092	89	254	161	170
23 Greater Plymouth South Shore	2,467	28	99	70	47
24 Greater Attleboro/Taunton Area	3,464	63	213	145	132

Table 28. (Continued)
Number of Births by Mother's Age and Prenatal Care Characteristics
27 Community Health Network Areas¹ 1995

Community Health Network Areas (CHNA)	All Ages	Teens			
	Number of Births	Number of Births		Prenatal Care (< 20 Years)	
		< 18 Years	< 20 Years	Number Began in 1st Trimester	Number Paid by Public Funds
25 Greater Fall River Area	1,608	81	203	128	139
26 Greater New Bedford Area	2,174	107	284	193	205
27 Cape Cod and the Islands	2,295	37	120	100	69

Source: Registry of Vital Records and Statistics, MDPH, 1995.

¹ See Appendix for Community Health Network Area definition and city/town groupings.

Appendix

Technical Notes

We recommend that the following cautions be kept in mind when examining the data:

- In cases where there are small numbers of teen births, especially at the city/town level and by race/ethnicity or age, small changes in the numbers from year to year will produce large changes in percentages, making the differences appear more significant than they are in reality.
- Unless otherwise stated, percentages are based on the number of births or mothers that have known information regarding a demographic or birth characteristic.
- Birth rates (number of births per 1,000 women) are calculated using Census counts of the resident population of Massachusetts. Because the Census is taken only once every ten years, the annual number of residents in each city/town and in the state for non-Census years are projected estimates, not actual counts. Therefore, the numbers of resident women may be underestimated (resulting in inflated birth rates), or overestimated (resulting in lower birth rates).
- The infant mortality rate for women under the age of 20 is not yet available for the 1995 year of released birth and death data. In order to get an accurate count of deaths to infants born in 1995, it is necessary to link the birth and death files over a three year period (1994-1996); and because the 1996 death file data was not available at the time of this report, 1994 data were used. To clarify further, those infant deaths resulting from births in 1994 must be removed from the 1995 deaths data set; those births in 1995 that resulted in deaths in 1996 must be added to the 1995 death file; and finally there are those births in 1995 that ended in death in the same year. The resulting file is then linked to the 1995 birth file, and this linked file becomes the source for calculating maternal age-specific infant mortality rates.

Glossary

Adequacy of Prenatal Care: Adequacy of prenatal care is calculated from information reported by the birth hospital. The index of Adequacy of Prenatal Care (based on the Kessner Index) has three categories (adequate, intermediate, inadequate/none) based on the trimester in which prenatal care began and the number of prenatal visits. The general classification scheme is:

<u>Category</u>	<u>Trimester Care Began</u>	<u>Number of Visits</u>
Adequate	1	9 or more
Intermediate	1	5-8
	2	5 or more
Inadequate/None	1	1-4
	2	1-4
	3	1 or more

The classification is adjusted for gestational age to allow for proper classification of premature infants.

Birth Rate: see Teen Birth Rate.

Birthweight Categories: Birthweight is the weight of an infant recorded at the time of delivery.

Normal Birthweight (NBW): An infant's weight of 2,500 grams (5.5 pounds) or more

Low Birthweight (LBW): An infant's weight of less than 2,500 grams (5.5 pounds)

Very Low Birthweight (VLBW): An infant's weight of less than 1,500 grams (3.3 pounds)

Education: Education is self-reported on the birth certificate by the mother and indicates the highest grade or total number of years of schooling she has completed.

Ethnicity: Mother's ethnicity is self-reported.

Expected Educational Attainment Refers to the maximum expected age of a student in a particular school grade. Teen mothers were classified as being at least one grade behind if they were two or more years older than the maximum expected age for the reported grade level. For example, if a teen is 16 years old and reports she has completed eighth grade, then she is at least one year behind the expected age for that grade. The following age-for grade cutoffs were used:

<u>Grade</u>	<u>Maximum Expected Age</u>
6th	12
7th	13
8th	14
9th	15
10th	16
11th	17
12th	18

Due to language or educational differences, foreign-born youth are often placed in school at least one grade behind the expected grade. As a result, the foreign-born teen mothers were classified as being at least one grade behind if they were ~~two~~ three or more years older than the maximum expected.

Gestational Age: The length of time a fetus *isn utero* before birth. In this publication, the clinical estimate of gestational age has been used for analysis. Clinical gestational age is determined by the attendant at birth or a physician providing postnatal care to the newborn. A normal gestational age is defined as delivery between the completion of the 37th and the 42nd week of pregnancy.

Healthy Start: Healthy Start is a Massachusetts-funded program providing services and financing for prenatal care to low-income (up to 200% of the poverty level) pregnant women who lack health insurance but do not qualify for Medicaid.

Infant Mortality: The death of a child under 1 year of age (≤ 364 days old).

Infant Mortality Rate: The number of infant deaths in a year divided by the number of births in that year, multiplied by 1,000 to express the rate per 1,000 live births.

Live Birth: A live birth is defined as any infant who breathes or shows any other evidence of life (such as beating of the heart, pulsation of the umbilical code, or definite movement of voluntary muscles) after delivery. All figures and tables in this report, showing Massachusetts data, are based on live births to Massachusetts residents (see Resident Birth).

Low Birthweight: see Birthweight Categories.

Normal Birthweight: see Birthweight Categories.

Mother's Age: Mother's age is computed from her date of birth and the date of delivery.

Multiparous: A multiparous mother is one who has had at least one previous live birth.

Parity: The number of live infants ever born to the mother. Parity includes all previous live births as well as the infant named on the birth certificate.

Paternity Acknowledgement: The process by which the paternity of an infant is legally established when the parents are unmarried. As part of the birth registration process, parents sign an acknowledgement form and their signatures are notarized. The father's information is then added to the child's birth certificate. Paternity can also be acknowledged at a town clerk's office after the mother and child have been discharged from the hospital. Paternity may be established through legal action or through voluntary acknowledgement in the case of unmarried couples; when a couple is married, the husband is legally considered the infant's father. *Paternity acknowledgement data in this report reflects voluntary self-acknowledgement data collected in hospitals, at time of birth only.*

Prenatal Care Payment Source: Prenatal care payment source is self-reported by the mother. Groupings include:

- Private: Blue Cross/Blue Shield, commercial insurance, and health maintenance organizations (HMOs). The HMO category may include Medicaid recipients in managed care programs.
- Public: Medicaid, Healthy Start, Medicare and other government sources (e.g., CHAMPUS).
- Uninsured: Care paid for out of pocket or provided free of charge.
- Other: Workers' Compensation and other specified types of funding not classified elsewhere.

Race/Hispanic Ethnicity: Mother's race and Hispanic ethnicity are self-reported.

Resident Birth: Resident birth is defined as the birth of an infant whose mother reports her usual place of residence as Massachusetts. In Massachusetts, a resident is a person with a permanent address in one of the 351 cities or towns. Massachusetts resident births include all births that occur among residents of the Commonwealth whether they occur in Massachusetts or elsewhere.

Teen Birth Rate: The number of children born among females ages 15 to 19 divided by the population of females in that age group, multiplied by 1,000.

Very Low Birthweight: see Birthweight Categories.

**1995 Population Estimates of Females Ages 15 to 19 Years Living in 25
Massachusetts Communities with the Highest Number of
Teen Births in 1995**

<u>Community</u>	<u>Estimated Number of Females, Ages 15-19 years</u>
Massachusetts	204,800
Attleboro	1,233
Boston	21,390
Brockton	3,267
Chelsea	858
Chicopee	1,859
Fall River	3,169
Fitchburg	1,762
Framingham	2,214
Haverhill	1,763
Holyoke	1,443
Lawrence	2,586
Leominster	1,232
Lowell	3,948
Lynn	2,419
Methuen	1,335
New Bedford	3,397
Pittsfield	1,521
Quincy	2,257
Revere	1,049
Salem	1,238
Somerville	1,978
Southbridge	573
Springfield	5,802
Taunton	1,602
Worcester	6,447

Source: 1995 estimates from the Massachusetts Institute for Social and Economic Research (MISER).

Massachusetts Cities, Towns, Counties, and Community Health Network Area (CHNAs)

City/Town	County	CHNA	City/Town	County	CHNA
Abington	Plymouth	22	Dartmouth	Bristol	26
Acton	Middlesex	15	Dedham	Norfolk	18
Acushnet	Bristol	26	Deerfield	Franklin	2
Adams	Berkshire	1	Dennis	Barnstable	27
Agawam	Hampden	4	Dighton	Bristol	24
Alford	Berkshire	1	Douglas	Worcester	6
Amesbury	Essex	12	Dover	Norfolk	18
Amherst	Hampshire	3	Dracut	Middlesex	10
Andover	Essex	11	Dudley	Worcester	5
Arlington	Middlesex	17	Dunstable	Middlesex	10
Ashburnham	Worcester	9	Duxbury	Plymouth	23
Ashby	Middlesex	9	East Bridgewater	Plymouth	22
Ashfield	Franklin	2	East Brookfield	Worcester	5
Ashland	Middlesex	7	East Longmeadow	Hampden	4
Athol	Worcester	2	Eastham	Barnstable	27
Attleboro	Bristol	24	Easthampton	Hampshire	3
Auburn	Worcester	8	Easton	Bristol	22
Avon	Norfolk	22	Edgartown	Dukes	27
Ayer	Middlesex	9	Egremont	Berkshire	1
Barnstable	Barnstable	27	Erving	Franklin	2
Barre	Worcester	9	Essex	Essex	13
Becket	Berkshire	1	Everett	Middlesex	16
Bedford	Middlesex	15	Fairhaven	Bristol	26
Belchertown	Hampshire	3	Fall River	Bristol	25
Bellingham	Norfolk	6	Falmouth	Barnstable	27
Belmont	Middlesex	17	Fitchburg	Worcester	9
Berkley	Bristol	24	Florida	Berkshire	1
Berlin	Worcester	9	Foxborough	Norfolk	7
Bernardston	Franklin	2	Framingham	Middlesex	7
Beverly	Essex	13	Franklin	Norfolk	6
Billerica	Middlesex	10	Freetown	Bristol	26
Blackstone	Worcester	6	Gardner	Worcester	9
Blandford	Hampden	4	Gay Head	Dukes	27
Bolton	Worcester	9	Georgetown	Essex	12
Boston	Suffolk	19	Gill	Franklin	2
Bourne	Barnstable	27	Gloucester	Essex	13
Boxborough	Middlesex	15	Goshen	Hampshire	3
Boxford	Essex	12	Gosnold	Dukes	27
Boylston	Worcester	8	Grafton	Worcester	8
Braintree	Norfolk	20	Granby	Hampshire	3
Brewster	Barnstable	27	Granville	Hampden	4
Bridgewater	Plymouth	22	Great Barrington	Berkshire	1
Brimfield	Hampden	5	Greenfield	Franklin	2
Brockton	Plymouth	22	Groton	Middlesex	9
Brookfield	Worcester	5	Groveland	Essex	12
Brookline	Norfolk	19	Hadley	Hampshire	3
Buckland	Franklin	2	Halifax	Plymouth	23
Burlington	Middlesex	15	Hamilton	Essex	13
Cambridge	Middlesex	17	Hampden	Hampden	4
Canton	Norfolk	20	Hancock	Berkshire	1
Carlisle	Middlesex	15	Hanover	Plymouth	23
Carver	Plymouth	23	Hanson	Plymouth	23
Charlemont	Franklin	2	Hardwick	Worcester	9
Charlton	Worcester	5	Harvard	Worcester	9
Chatham	Barnstable	27	Harwich	Barnstable	27
Chelmsford	Middlesex	10	Hatfield	Hampshire	3
Chelsea	Suffolk	19	Haverhill	Essex	12
Cheshire	Berkshire	1	Hawley	Franklin	2
Chester	Hampden	3.1	Heath	Franklin	2
Chesterfield	Hampshire	3	Hingham	Plymouth	20
Chicopee	Hampden	3.1	Hinsdale	Berkshire	1
Chilmark	Dukes	27	Holbrook	Norfolk	22
Clarksburg	Berkshire	1	Holden	Worcester	8
Clinton	Worcester	9	Holland	Hampden	5
Cohasset	Norfolk	20	Holliston	Middlesex	7
Colrain	Franklin	2	Holyoke	Hampden	3
Concord	Middlesex	15	Hopedale	Worcester	6
Conway	Franklin	2	Hopkinton	Middlesex	7
Cummington	Hampshire	3	Hubbardston	Worcester	9
Dalton	Berkshire	1	Hudson	Middlesex	7

Danvers	Essex	14	Hull	Plymouth	20
City/Town	County	CHNA	City/Town	County	CHNA
Huntington	Hampshire	3.1	Northampton	Hampshire	3
Ipswich	Essex	13	Northborough	Worcester	7
Kingston	Plymouth	23	Northbridge	Worcester	6
Lakeville	Plymouth	24	Northfield	Franklin	2
Lancaster	Worcester	9	Norton	Bristol	24
Lanesborough	Berkshire	1	Norwell	Plymouth	20
Lawrence	Essex	11	Norwood	Norfolk	20
Lee	Berkshire	1	Oak Bluffs	Dukes	27
Leicester	Worcester	8	Oakham	Worcester	9
Lenox	Berkshire	1	Orange	Franklin	2
Leominster	Worcester	9	Orleans	Barnstable	27
Leverett	Franklin	2	Otis	Berkshire	1
Lexington	Middlesex	15	Oxford	Worcester	5
Leyden	Franklin	2	Palmer	Hampden	4
Lincoln	Middlesex	15	Paxton	Worcester	8
Littleton	Middlesex	15	Peabody	Essex	14
Longmeadow	Hampden	4	Pelham	Hampshire	3
Lowell	Middlesex	10	Pembroke	Plymouth	23
Ludlow	Hampden	3.1	Pepperell	Middlesex	9
Lunenburg	Worcester	9	Peru	Berkshire	1
Lynn	Essex	14	Petersham	Worcester	2
Lynnfield	Essex	14	Phillipston	Worcester	2
Malden	Middlesex	16	Pittsfield	Berkshire	1
Manchester	Essex	13	Plainfield	Hampshire	3
Mansfield	Bristol	24	Plainville	Norfolk	7
Marblehead	Essex	14	Plymouth	Plymouth	23
Marion	Plymouth	26	Plympton	Plymouth	23
Marlborough	Middlesex	7	Princeton	Worcester	9
Marshfield	Plymouth	23	Provincetown	Barnstable	27
Mashpee	Barnstable	27	Quincy	Norfolk	20
Mattapoissett	Plymouth	26	Randolph	Norfolk	20
Maynard	Middlesex	7	Raynham	Bristol	24
Medfield	Norfolk	7	Reading	Middlesex	14
Medford	Middlesex	16	Rehoboth	Bristol	24
Medway	Norfolk	6	Revere	Suffolk	19
Melrose	Middlesex	14	Richmond	Berkshire	1
Mendon	Worcester	6	Rochester	Plymouth	26
Merrimac	Essex	12	Rockland	Plymouth	23
Methuen	Essex	11	Rockport	Essex	13
Middleborough	Plymouth	24	Rowe	Franklin	2
Middlefield	Hampshire	3	Rowley	Essex	12
Middleton	Essex	11	Royalston	Worcester	2
Milford	Worcester	6	Russell	Hampden	4
Millbury	Worcester	8	Rutland	Worcester	9
Millis	Norfolk	7	Salem	Essex	14
Millville	Worcester	6	Salisbury	Essex	12
Milton	Norfolk	20	Sandisfield	Berkshire	1
Monroe	Franklin	2	Sandwich	Barnstable	27
Monson	Hampden	4	Saugus	Essex	14
Montague	Franklin	2	Savoy	Berkshire	1
Monterey	Berkshire	1	Scituate	Plymouth	20
Montgomery	Hampden	4	Seekonk	Bristol	24
Mt. Washington	Berkshire	1	Sharon	Norfolk	20
Nahant	Essex	14	Sheffield	Berkshire	1
Nantucket	Nantucket	27	Shelburne	Franklin	2
Natick	Middlesex	7	Sherborn	Middlesex	7
Needham	Norfolk	18	Shirley	Middlesex	9
New Ashford	Berkshire	1	Shrewsbury	Worcester	8
New Bedford	Bristol	26	Shutesbury	Franklin	2
New Braintree	Worcester	9	Somerset	Bristol	25
New Marlborough	Berkshire	1	Somerville	Middlesex	17
New Salem	Franklin	2	South Hadley	Hampshire	3
Newbury	Essex	12	Southampton	Hampshire	3
Newburyport	Essex	12	Southborough	Worcester	7
Newton	Middlesex	18	Southbridge	Worcester	5
Norfolk	Norfolk	7	Southwick	Hampden	4
North Adams	Berkshire	1	Spencer	Worcester	5
North Andover	Essex	11	Springfield	Hampden	4
N. Attleborough	Bristol	24	Sterling	Worcester	9
North Brookfield	Worcester	5	Stockbridge	Berkshire	1

North Reading	Middlesex	14	Stoneham	Middlesex	14
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City/Town	County	CHNA	
Stoughton	Norfolk	22	
Stow	Middlesex	7	
Sturbridge	Worcester	5	
Sudbury	Middlesex	7	
Sunderland	Franklin	2	
Sutton	Worcester	6	
Swampscott	Essex	14	
Swansea	Bristol	25	
Taunton	Bristol	24	
Templeton	Worcester	9	
Tewksbury	Middlesex	10	
Tisbury	Dukes	27	
Tolland	Hampden	4	
Topsfield	Essex	13	
Townsend	Middlesex	9	
Truro	Barnstable	27	
Tyngsborough	Middlesex	10	
Tyringham	Berkshire	1	
Upton	Worcester	6	
Uxbridge	Worcester	6	
Wakefield	Middlesex	14	
Wales	Hampden	5	
Walpole	Norfolk	7	
Waltham	Middlesex	18	
Ware	Hampshire	3	
Wareham	Plymouth	26	
Warren	Worcester	5	
Warwick	Franklin	2	
Washington	Berkshire	1	
Watertown	Middlesex	17	
Wayland	Middlesex	7	
Webster	Worcester	5	
Wellesley	Norfolk	18	
Wellfleet	Barnstable	27	
Wendell	Franklin	2	
Wenham	Essex	13	
West Boylston	Worcester	8	
West Bridgewater	Plymouth	22	
West Brookfield	Worcester	5	
West Newbury	Essex	12	
West Springfield	Hampden	4	
West Stockbridge	Berkshire	1	
West Tisbury	Dukes	27	
Westborough	Worcester	7	
Westfield	Hampden	3.1	
Westford	Middlesex	10	
Westhampton	Hampshire	3	
Westminster	Worcester	9	
Weston	Middlesex	18	
Westport	Bristol	25	
Westwood	Norfolk	18	
Weymouth	Norfolk	20	
Whately	Franklin	2	
Whitman	Plymouth	22	
Wilbraham	Hampden	4	
Williamsburg	Hampshire	3	
Williamstown	Berkshire	1	
Wilmington	Middlesex	15	
Winchendon	Worcester	9	
Winchester	Middlesex	15	
Windsor	Berkshire	1	
Winthrop	Suffolk	19	
Woburn	Middlesex	15	
Worcester	Worcester	8	
Worthington	Hampshire	3	
Wrentham	Norfolk	7	
Yarmouth	Barnstable	27	

Community Health Network Areas

1. Community Health Network of Berkshire County
2. Greater Franklin/North Quabbin CHN
3. Greater Northampton Area Partnership for Health
- 3.1 Greater Holyoke Area
4. Greater Springfield Community Health Network
5. Greater Southbridge
6. Greater Milford Community Partners for Health
7. Greater Framingham Area
8. Greater Worcester Area CHN
9. Fitchburg/Gardner Area
10. Greater Lowell Community Health Network
11. Greater Lawrence Area
12. Greater Haverhill Area
13. Beverly/Gloucester Area
14. North Shore Community Health Network
15. Greater Woburn/Concord/Littleton Area
16. Malden/Medford/Melrose Area
17. Somerville/Cambridge Area
18. Newton/Waltham West Suburban Health Network
19. Alliance for Community Health
20. Blue Hills Community Health Alliance
22. Greater Brockton Community Health Network
23. Greater Plymouth South Shore
24. Greater Attleboro/Taunton Area
25. Greater Fall River Area
26. Greater New Bedford Area
27. Cape Cod and the Islands

